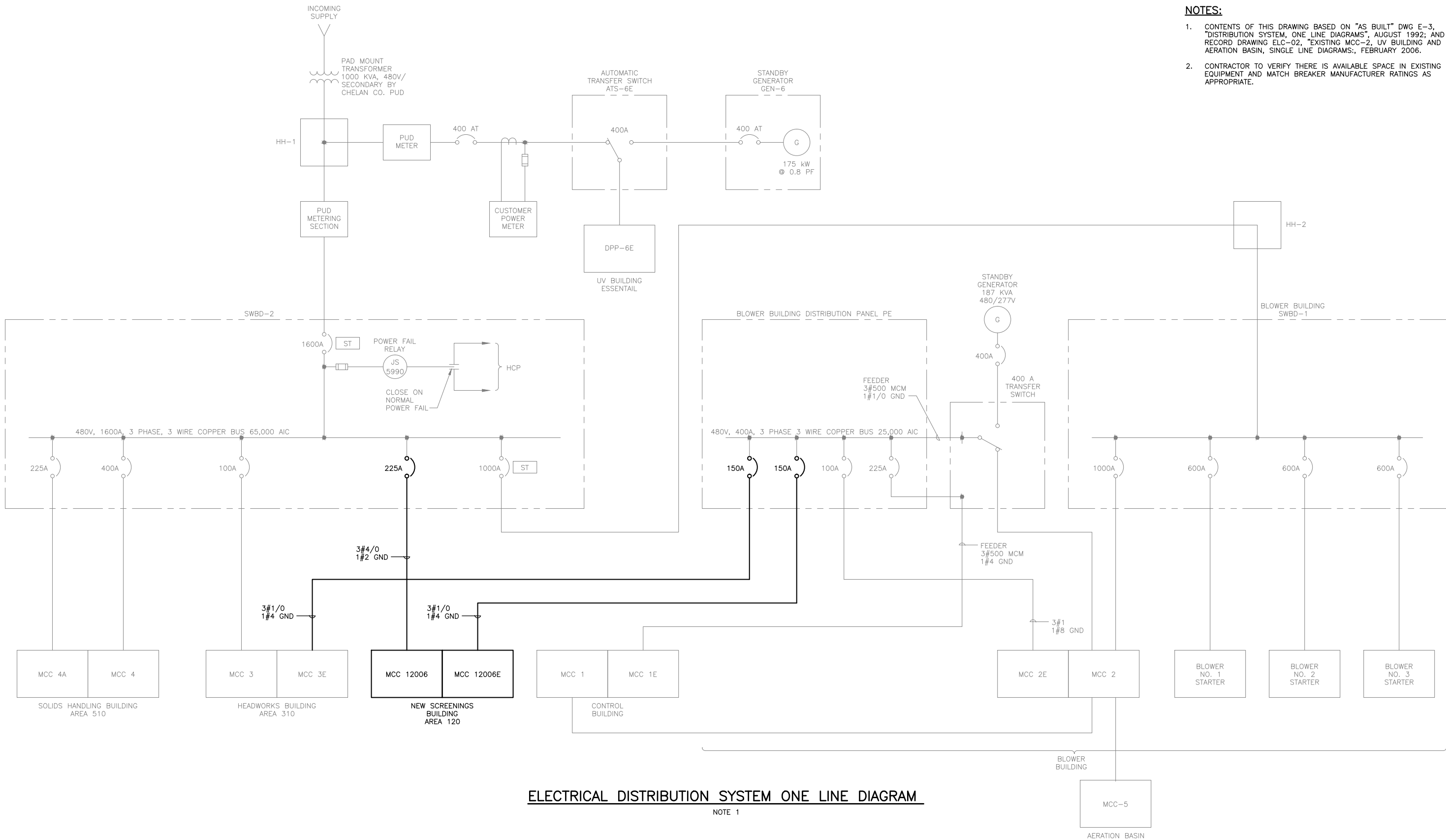




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NOTES:

1. CONTENTS OF THIS DRAWING BASED ON "AS BUILT" DWG E-3, "DISTRIBUTION SYSTEM, ONE LINE DIAGRAMS", AUGUST 1992; AND RECORD DRAWING ELC-02, "EXISTING MCC-2, UV BUILDING AND AERATION BASIN, SINGLE LINE DIAGRAMS", FEBRUARY 2006.
2. CONTRACTOR TO VERIFY THERE IS AVAILABLE SPACE IN EXISTING EQUIPMENT AND MATCH BREAKER MANUFACTURER RATINGS AS APPROPRIATE.



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DESIGNED	I. RINCON
DRAWN	P. McCLINTOCK
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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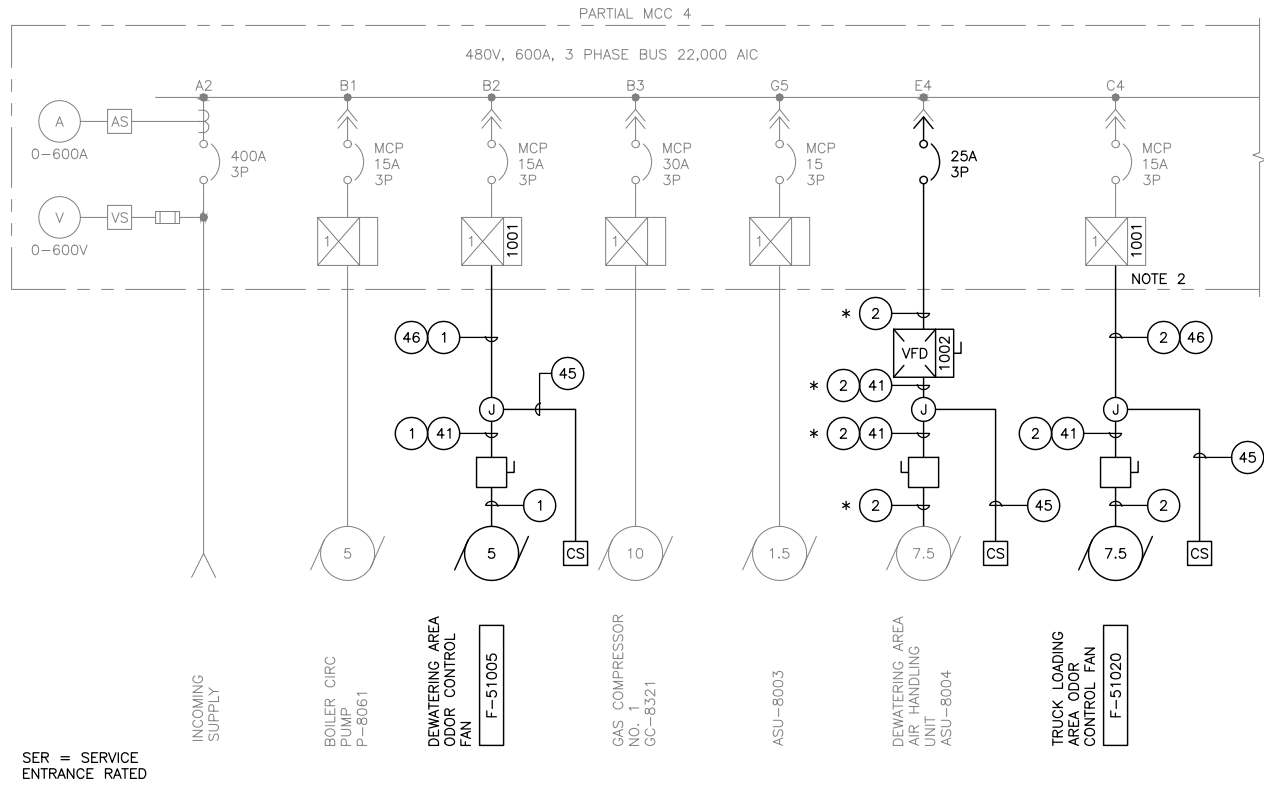
EXISTING ELECTRICAL DISTRIBUTION SYSTEM MODIFICATIONS



FILENAME	000E-02.dwg
SCALE	NONE

SHEET
000E-02

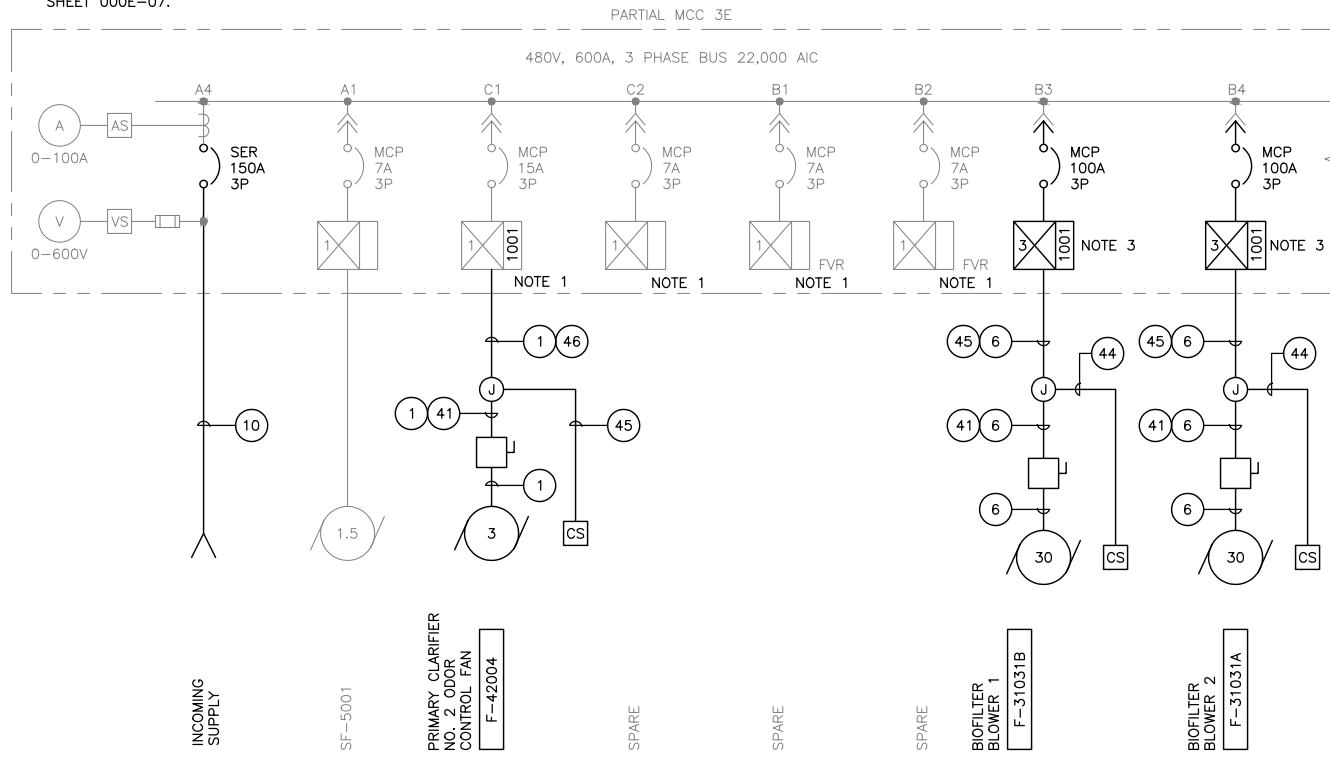
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SER = SERVICE ENTRANCE RATED  
NO. NUMBER IN CIRCLE CORRESPONDS TO CONDUIT AND CABLE SCHEDULE, SHEET 000E-07.

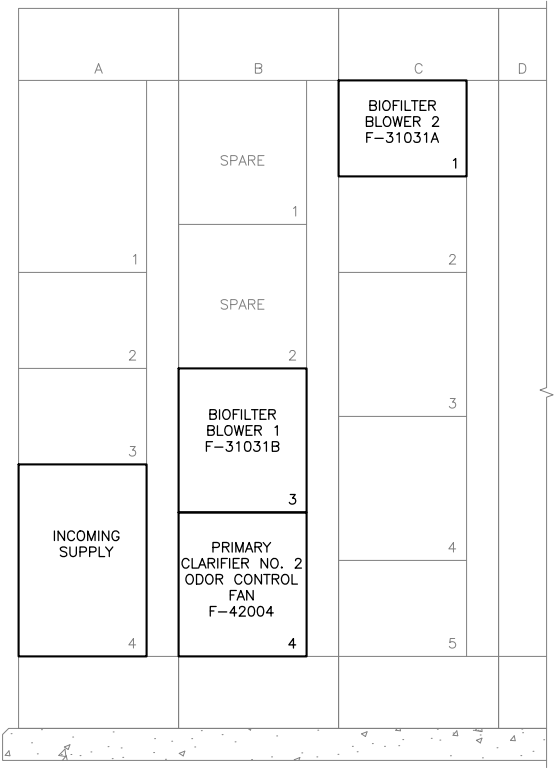
PARTIAL EXISTING MCC 4 ONE LINE DIAGRAM

\* VFD SHIELDED CABLE

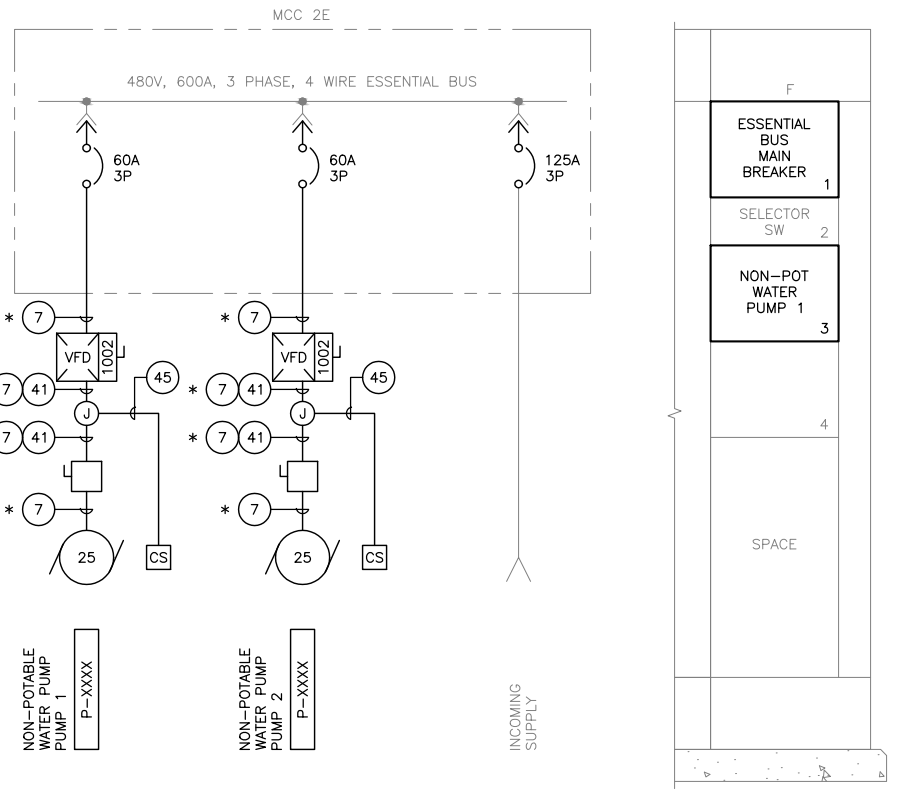


PARTIAL EXISTING MCC 3E ONE LINE DIAGRAM

PARTIAL EXISTING MCC 4 ELEVATION  
NO SCALE



PARTIAL EXISTING MCC 3E ELEVATION  
NO SCALE



EXISTING MCC 2E ONE LINE DIAGRAM

EXISTING MCC 2E ELEV  
NO SCALE

NOTES:

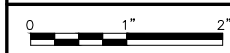
- AT MCC 3E, DISCONNECT LOADS ASSOCIATED WITH SCREENING PRESS BUCKETS C1, C2 AND MECHANICAL BAR SCREEN BUCKETS B2 & B2. RE-USE MOTOR STARTER C1 FOR PRIMARY CLARIFIER 2 ODOR CONTROL FAN. MOTOR STARTERS IN BUCKETS B2, C1 & C2 BECOME SPARES.
- AT MCC 4, REPLACE EXISTING MOTOR STARTER WITH NEW CIRCUIT BREAKER FOR FEEDER TO NEW VFD. CONTRACTOR TO MODIFY EXISTING CONTROL WIRING TO MEET APPLICATION.
- AT MCC 3E, PROVIDE NEW COMBINATION MOTOR STARTERS, INCLUDING CIRCUIT PROTECTION AND ALL ACCESSORIES, IN SPACE AVAILABLE IN SECTION B. PROVIDE ALL POWER AND CONTROL WIRING FOR COMPLETE FUNCTIONALITY OF MOTOR LOADS.
- AT MCC 2E, REPLACE EXISTING MAIN CIRCUIT BREAKER AND NPW PUMPS MOTOR STARTERS WITH NEW CIRCUIT BREAKERS.
- AT MCC 2E, REMOVE AND REPLACE EXISTING WIRING IN CONDUIT SYSTEM FOR NEW 25 HP MOTORS. PROVIDE NEW POWER AND CONTROL WIRING AS REQUIRED BY APPLICATION.
- AT MCC 2E, ADD NEW CIRCUIT BREAKERS IN EXISTING SPACE.
- AT MCC 2E, PROVIDE NEW ENCLOSED VFD FOR EACH 25 HP MOTOR; COORDINATE LOCATION WITH OWNER.



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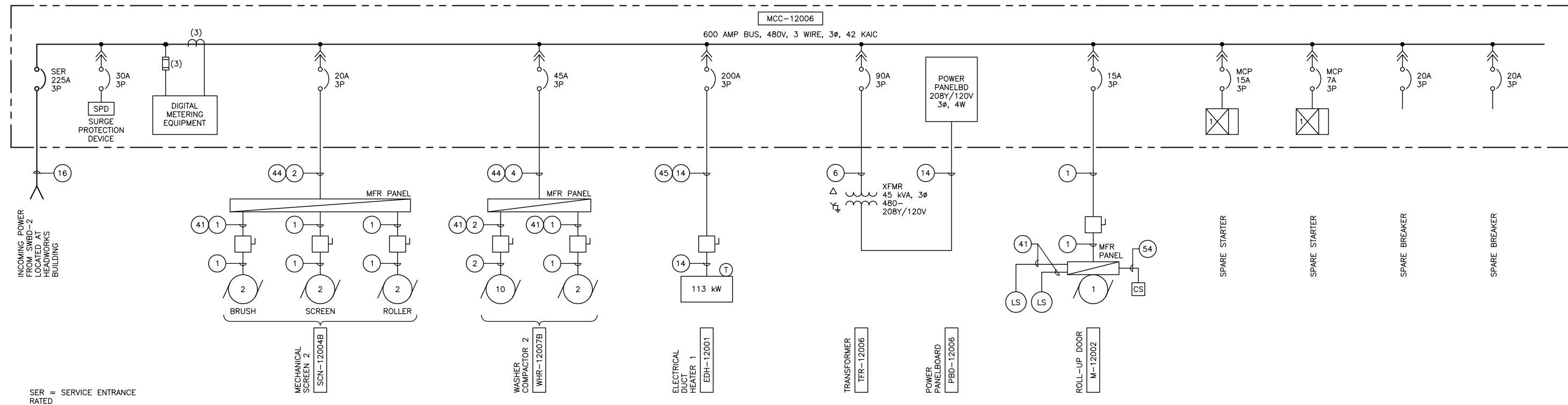
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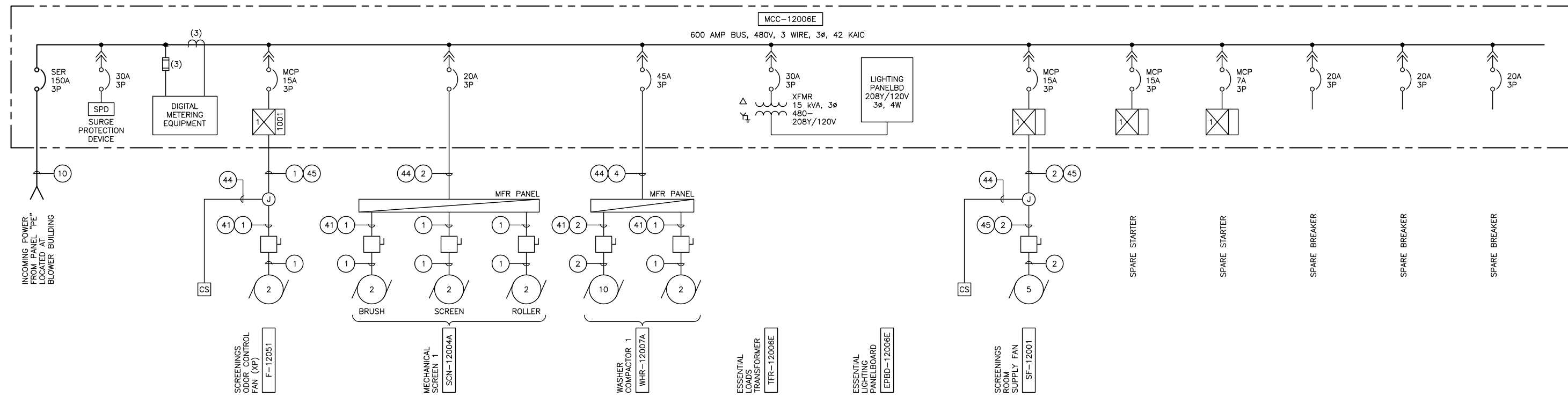
EXISTING MCC ONE LINE DIAGRAMS MODIFICATIONS

FILENAME	000E-03.dwg	SHEET
SCALE	NONE	000E-03

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MCC-12006 ONE LINE DIAGRAM



MCC-12006E (ESSENTIAL) ONE LINE DIAGRAM



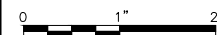
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SCREENINGS BUILDING  
ELECTRICAL  
ONE LINE DIAGRAM

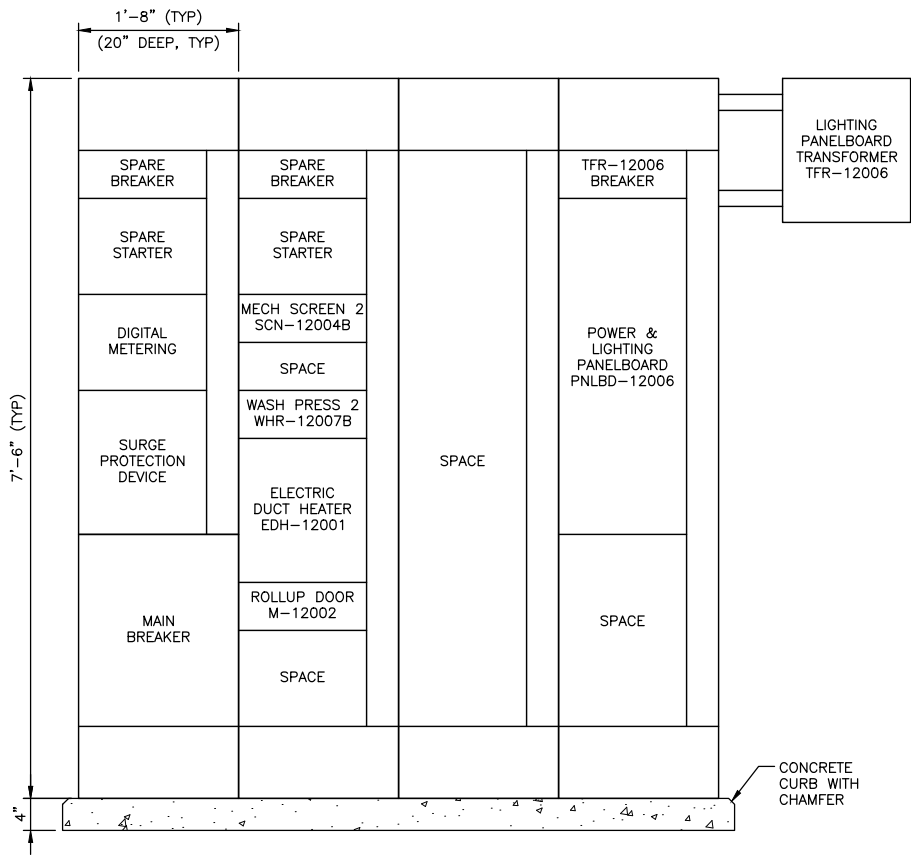


FILENAME	000E-04.dwg
SCALE	NONE

SHEET	000E-04
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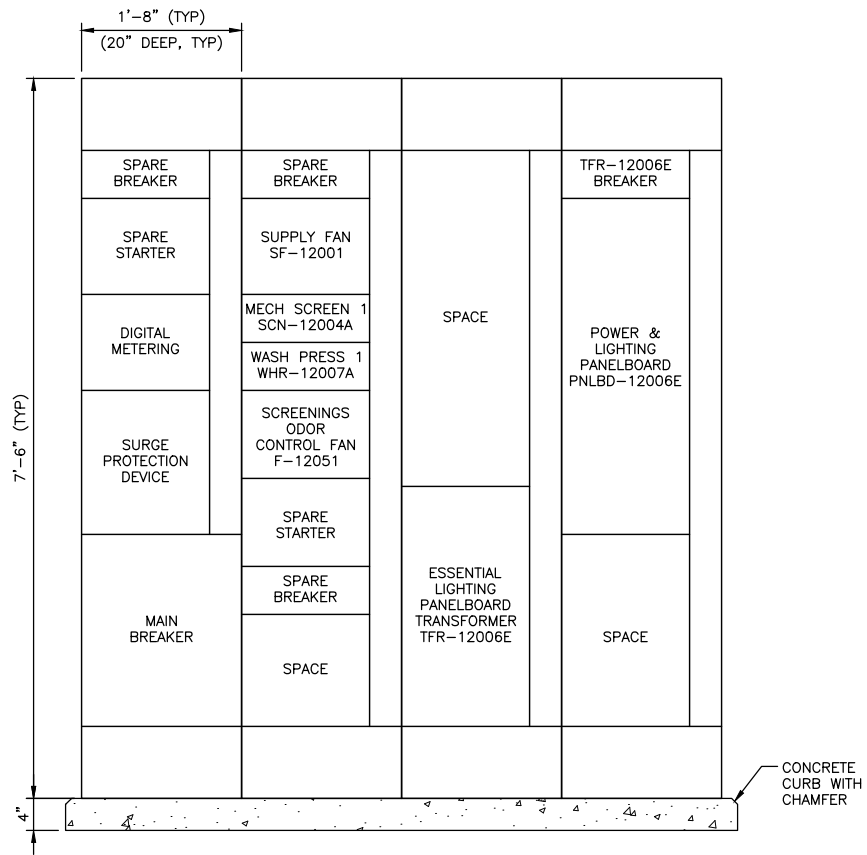
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MCC-12006 FRONT VIEW

MOTOR CONTROL CENTER ELEVATION

SCALE: NONE



ESSENTIAL LOADS  
MCC-12006E FRONT VIEW

MOTOR CONTROL CENTER ELEVATION

SCALE: NONE



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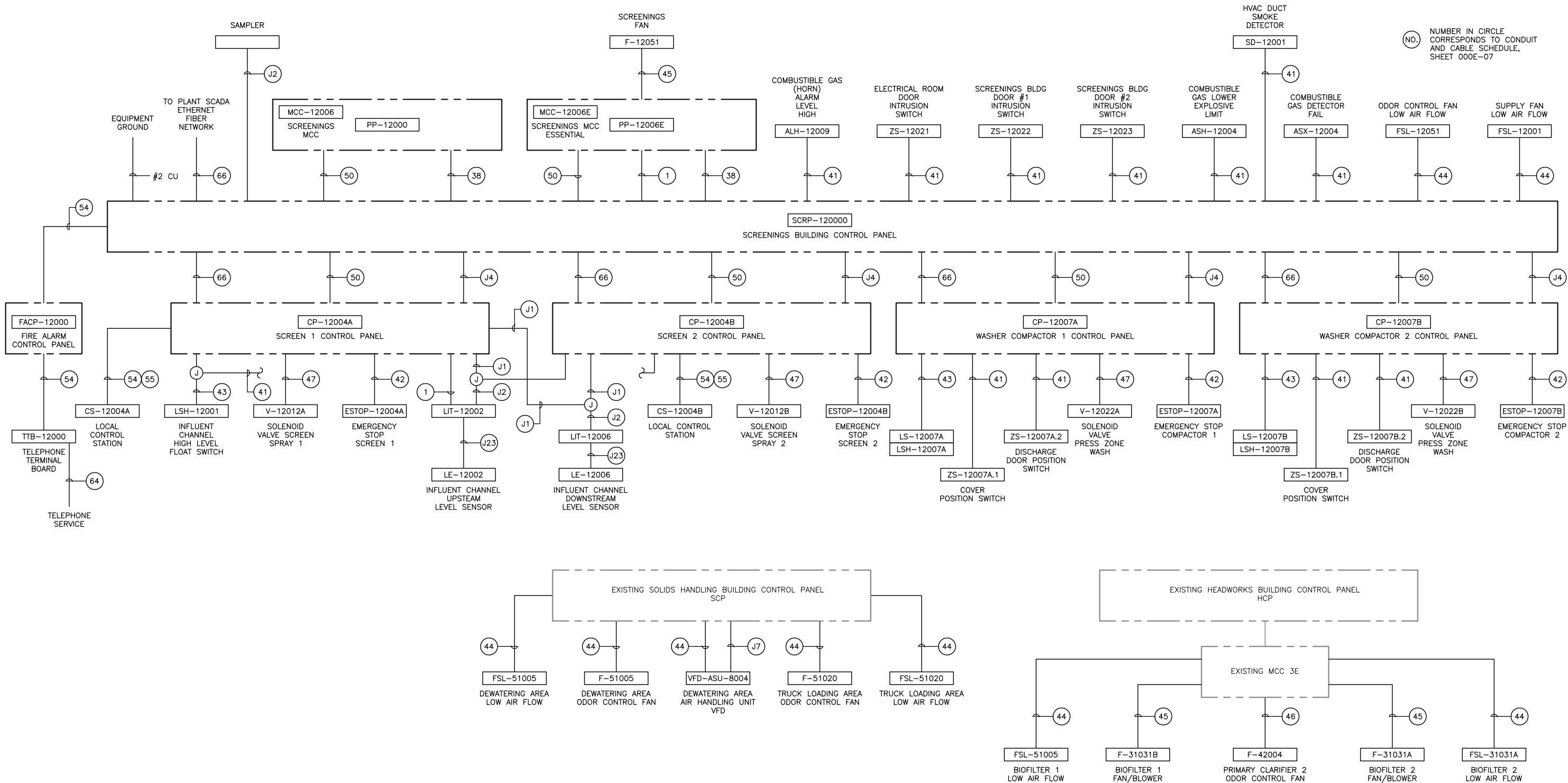
SCREENINGS BUILDING  
ELECTRICAL  
MCC ELEVATION



FILENAME	000E-05.dwg
SCALE	AS NOTED

SHEET
000E-05

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CONDUIT AND WIRING BLOCK DIAGRAMS



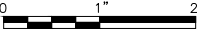
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ELECTRICAL CONTROL PANEL BLOCK DIAGRAMS



FILENAME	000E-06.dwg	SHEET
SCALE	NONE	000E-06

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POWER CIRCUITS							
(NO.)	POWER CONDUCTORS	GROUND CONDUCTORS	CONDUIT SIZE	(NO.)	POWER CONDUCTORS	GROUND CONDUCTORS	CONDUIT SIZE
1	3#12	1#12	3/4"	21	4#350 KCM	1#2	3 1/2"
2	3#10	1#10	3/4"	22	3#500 KCM	1#1/0	3"
3	4#10	1#10	3/4"	23	3#500 KCM	1#4/0	3"
4	3#8	1#10	1"	24	6#12	1#12	1"
5	4#8	1#10	1"	25	2#12	1#12	3/4"
6	3#6	1#8	1 1/2"	26	5#12	1#12	1"
7	3#4	1#8	1 1/2"	27	2#10	1#10	3/4"
8	3#2	1#6	1 1/2"	28	4#6	1#8	1 1/2"
9	3#1	1#6	2"	29	3#12	1#12	3/4"
10	3#1/0	1#4	2"	30	2#6	1#8	1"
11	4#1/0	1#4	2 1/2"	31	4#4	1#6	1 1/2"
12	3#2/0	1#4	2 1/2"	32	2#8	1#10	1"
13	4#2/0	1#4	2 1/2"	33	4#1	1#6	2"
14	3#3/0	1#4	2 1/2"	34	4#12	2#12	3/4"
15	4#3/0	1#4	2 1/2"	35	8#12	1#12	1"
16	3#4/0	1#2	3"	36			
17	4#4/0	1#2	3"	37	2#10	1#10	1"
18	3#250 KCM	1#2	3"	38	2#12	12#12	2"
19	4#250 KCM	1#2	3"	39	4#2	1#6	1 1/2"
20	3#350 KCM	1#2	3"				

POWER TRAY CABLES			
(NO.)	CABLE	CONDUIT SIZE	
		WITHOUT CONTROL	WITH CONTROL
P1	3#12, 1#12 GND	3/4"	1 1/2"
P2	3#10, 1#10 GND	3/4"	1 1/2"
P3	3#8, 3#14 GND	1"	2"
P4	3#6, 3#12 GND	1 1/2"	
P5	3#4, 3#12 GND	1 1/2"	
P6	3#2, 3#10 GND	2"	
P7	3#1, 3#10 GND	2"	
P8	3#1/0, 3#10 GND	2"	
P9	3#2/0, 3#10 GND	2 1/2"	
P10	3#3/0, 3#7 GND	2 1/2"	
P11	3#4/0, 3#7 GND	3"	
P12	2#12, 1#12 GND	3/4"	1 1/2"
P13	7#10	3/4"	
P14	2#10, 1#10 GND	3/4"	
P15	3#350 KCM, 3#2 GND	3 1/2"	

CONTROL WIRING					
(NO.)	CONDUCTORS	CONDUIT SIZE	(NO.)	CONDUCTORS	CONDUIT SIZE
40	2#14	3/4"	50	16#14	1"
41	3#14	3/4"	51	24#14	1"
42	4#14	3/4"	52	36#14	1 1/2"
43	5#14	3/4"	53	60#14	2"
44	6#14	3/4"	54	COORDINATE NO. OF WIRES AND CND WITH VENDOR SUPPLIED EQUIP	
45	7#14	3/4"			
46	8#14	3/4"	55	VENDOR CABLE	AS REQ'D
47	9#14	3/4"	61	PLC REMOTE I/O RACK COMM CABLE	2"
48	10#14	3/4"	62	ANTENNA COAXIAL CABLE ALL DIRECTIONAL	2"
49	12#14	3/4"	63	RS485 NETWORK CABLE	2"
			64	TELEPHONE CABLES	2"
			65	CITY NETWORK CABLE	2"
			66	FIBER OPTIC CABLE	2"
			67	CATEGORY 6 ETHERNET CABLE	2"

CONDUIT AND CABLE NOTES:

- FOR CIRCUITS WITH PARALLEL CONDUCTORS, INCREASE THE EQUIPMENT GROUNDING CONDUCTOR SIZE AS REQUIRED IN NEC 250-122.
- (DISCRETE) CONTROL CONDUCTORS ARE ALLOWED TO ROUTE IN SAME CONDUIT WITH POWER CONDUCTORS OR CABLE WHERE THE POWER CONDUCTORS ARE LESS THAN OR EQUAL TO #8 AWG AND BOTH MUST HOMERUN TO THE SAME PANEL, UNLESS OTHERWISE NOTED ON THE DRAWINGS. MAXIMUM NUMBER OF COMBINED CONDUCTORS IN SAME CONDUIT - (8) CONTROL CONDUCTORS AND (4) POWER CONDUCTORS #8 AWG OR LESS. OTHERWISE, PROVIDE A SEPARATE CONDUIT FOR CONTROL CONDUCTORS ONLY. SIZE CONDUIT PER NATIONAL ELECTRICAL CODE REQUIREMENTS.
- WHERE ONLY CONTROL OR INSTRUMENTATION WIRING AND NO POWER IS INDICATED, PROVIDE CONDUIT.
- ANY CIRCUIT NOT IDENTIFIED WITH A MARK NUMBER OR DESCRIPTIVE NOTE IS A BRANCH CIRCUIT REQUIRING 2 OR 3#12, 1#12 GND, 3/4" CONDUIT.
- CIRCUIT SCHEDULES ARE STANDARD SCHEDULES. SOME NUMBERS MAY NOT BE USED.
- WHERE SHIELDED VFD CABLE IS REQUIRED, INCREASE CONDUIT SIZE TO MEET 53% FILL FOR A SINGLE CABLE, 31% FOR 2 CABLES OR 40% FOR 3 OR MORE CONDUITS/CABLES.
- REFER TO SHEET 000Y-08, NETWORK INTERFACE BLOCK DIAGRAM FOR FIBER OPTIC CABLE ROUTING. SIX FIBER, FIBER OPTIC CABLE FOR MULTI-MODE APPLICATION.

CONDUIT AND CABLE LEGEND:

CTL CONTROL  
GND GROUND  
PWR POWER  
SHLD SHIELDED  
STSP SHIELDED TWISTED SHIELDED PAIR  
STST SHIELDED TWISTED SHIELDED TRIAD  
TC TRAY CABLE  
TSP TWISTED SHIELDED PAIR  
TST TWISTED SHIELDED TRIAD

(NO.) NUMBER IN CIRCLE CORRESPONDS TO CONDUIT AND CABLE SCHEDULE

UNSHIELDED CONTROL CABLES					
(NO.)	CABLE	CONDUIT SIZE	(NO.)	CABLE	CONDUIT SIZE
C1	2#14 TC	3/4"	C14	24#14 TC	1 1/2"
C2	3#14 TC	3/4"	C15	30#14 TC	1 1/2"
C3	4#14 TC	3/4"	C16	36#14 TC	2"
C4	5#14 TC	1"	C17	2#12 TC	3/4"
C5	6#14 TC	1"	C18	3#12 TC	3/4"
C6	7#14 TC	1"	C19	5#12 TC	1"
C7	8#14 TC	1"	C20	7#12 TC	1"
C8	9#14 TC	1"	C21	9#12 TC	1"
C9	10#14 TC	1 1/2"	C22	2#16 TC	3/4"
C10	12#14 TC	1 1/2"	C23	3#16 TC	3/4"
C11	14#14 TC	1 1/2"	C24	5#16 TC	3/4"
C12	16#14 TC	1 1/2"	C25	7#16 TC	3/4"
C13	20#14 TC	1 1/2"	C26	9#16 TC	1"

INSTRUMENTATION CABLES					
(NO.)	CABLE	CONDUIT SIZE	(NO.)	CABLE	CONDUIT SIZE
J1	1 CABLE TSP #16	3/4"	J14	1 CABLE STSP, 12 PAIRS, #18	1 1/2"
J2	2 CABLES TSP #16	3/4"	J15	1 CABLE STSP, 24 PAIRS, #18	2"
J3	3 CABLES TSP #16	1"	J16	1 CABLE STSP, 36 PAIRS, #18	2"
J4	4 CABLES TSP #16	1"	J17	1 CABLE STST, 4 TRIADS, #18	1"
J5	5 CABLES TSP #16	1"	J18	1 CABLE STST, 6 TRIADS, #18	1 1/2"
J6	6 CABLES TSP #16	1 1/2"	J19	1 CABLE STST, 8 TRIADS, #18	1 1/2"
J7	1 CABLE TST #16	3/4"	J20	1 CABLE STST, 12 TRIADS, #18	1 1/2"
J8	2 CABLES TST #16	3/4"	J21	1 CABLE STST, 36 TRIADS, #18	2"
J9	3 CABLES TST #16	1"	J22	1 CABLE STST, 42 TRIADS, #18	2 1/2"
J10	4 CABLES TST #16	1"	J23	VENDOR CABLE	3/4"
J11	1 CABLE STSP, 4 PAIRS, #18	3/4"	J24	REMOTE I/O CABLE PER PLC FURNISHED	1"
J12	1 CABLE STSP, 6 PAIRS, #18	1"			
J13	1 CABLE STSP, 8 PAIRS, #18	1"			



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ELECTRICAL CONDUIT & CABLE SCHEDULE



FILENAME	000E-07.dwg
SCALE	NONE

SHEET	000E-07
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PANELBOARD PBD-12006E SCHEDULE																			
PANEL: PBD-12006E										ENTRANCE: BY MCC MFR					MOUNTING: INTEGRAL TO MCC				
SERVICE: 120/208 VOLTS, 3 PHASE, 4 WIRE, 100% NEUTRAL, MAINS 100 AMP															SERVICE ENTRANCE LABEL: NO				
MAIN DEVICE: 60 AMP CIRCUIT BREAKER, 3 POLE, 18,000 AIC															LOCATION:				
FEEDER SOURCE: TFR-12006E															FEEDER SIZE:				
CKT NO.	CIRCUIT IDENTIFICATION	CONNECTED LOAD (VA)				OCP		CND		CND	OCP		CONNECTED LOAD (VA)				CIRCUIT IDENTIFICATION	CKT NO.	
		LTS	REC	MECH	MISC	AMPS	P	(NO.)		(NO.)	P	AMPS	MISC	MECH	REC	LTS			
1	LTS, ELECTRICAL ROOM	300				20	1	1	A	1	1	20			900	REC, ELECTRICAL ROOM	2		
3	LTS, INFLUENT SCREENING ROOM	650				20	1	1	B	1	1	20			800	LTS, INFLUENT SCREENING ROOM	4		
5	EMERGENCY LTS, INFLUENT SCREENING ROOM	100				20	1	1	C	1	1	20			400	REC, INFLUENT SCREENING ROOM	6		
7	CHANNEL, LTS AND REC	500				20	1	1	A	1	1	20			1000	EXTERIOR LIGHTS	8		
9	MAINGATE (SWING), GCR-12075A			500					B					500		NW GATE #1, GCR-12077	10		
11				500		20	3	2	C	2	3	20		500			12		
13				500					A					500			14		
15	SPARE					15	1	1	B	1	1	15				SPARE	16		
17									C								18		
19	SCRCP (CONTROL PANEL) SCRCP-12000				1500	30	1	1	A	1	1	20				SPARE	20		
21	SAMPLER, SAMP-12001			500	500	15	1	1	B	1	1	20				SPARE	22		
23	MAIN ENTRANCE PEDESTRIAN GATE			300		20	1	1	C								24		
25	SOUTH ENTRANCE PEDESTRIAN GATE			300		20	1	2	A					500			26		
27	FCU-12001			750		25	2	1	B	2	3	20		500		NW GATE #2, GCR-12076	28		
29				750					C					500			30		
31	HOT BOX					20		1	A	1	1	15	300			NW #2 GATE CONTROLLER	32		
33	SPARE					20		1	B								34		
35	SPARE					20		1	C								36		
37	HEAT PUMP/HEATER								A								38		
39	HEAT PUMP/HEATER								B								40		
41									C								42		
LOAD SUMMARY																			
TOTAL CONNECTED LOAD (VA)		-		PHASE A (VA)		-													
				PHASE B (VA)		-													
				PHASE C (VA)		-													

PANELBOARD NO:		PBD-12006		PUBLIC ART SHOW PANELBOARD				DATE				5/25/2011				
VOLTAGE:		208Y/120		BUS RATING (A):		225		ENCLOSURE:		NEMA 1						
PHASE:		3		MAIN OC DEVICE (A/PHASE):		225		MOUNTING:		IN MCC-12006						
WIRE:		4+GND		INTERRUPTING RATING (KA):		22		LOCATION:		SCREENINGS BLDG,						
200% NEUTRAL:		NO		SERVICE ENTRANCE LABEL:		NO				ELECTRICAL RM						
CKT		CONNECTED LOAD (VA)				OCP		OCP		CONNECTED LOAD (VA)					CKT	
NO.	DESCRIPTION	LTS	REC	MECH	MISC	AMPS	P	AMPS	P	LTS	REC	MECH	MISC	DESCRIPTION	NO.	
1	LIGHTING CONTROL PANEL					20	1 A								2	
3	SPARE					20	1 B	20	3					SPARE	4	
5	SPARE					20	2 C								6	
7							A	20	1					SPARE	8	
9	D.I. #6 DIGESTER TYPE A1&A2	320				15	1 B	15	1				1,000	TO XFMR-A9 (FOR TYPE A9)	10	
11	SPARE					15	1 C	15	1					SPARE	12	
13	SPARE					15	1 A	15	1	33				TOP MAINVIEW PLAT. STAIRS TYPE A10	14	
15	D.I. #3 PRIM. CLARIF. #2 TYPE A3	240				15	1 B	15	1	107				SOUTH PLATFORM	16	
17	D.I. #4 UV HOUSE TYPE A4	236				15	1 C	15	1	189				LANDSCAPE LIGHTS N. TYPE A13	18	
19	D.I. #5 AERATION BASINS TYPE A5	236				15	1 A	15	1	189				LANDSCAPE LIGHTS S. TYPE A13	20	
21	LV SYSTEM 24VDC TYPE A6	100				15	1 B	15	1	107				SPARE	22	
23	D.I. #7 CH. GLASS PNLS. TYPE A7	942				15	1 C	20	1			500		WATER FEATURE PUMP #1	24	
25	MAIN VIEW PLATF. CAN. TYPE A8	402				15	1 A	20	1			500		WATER FEATURE PUMP #2	26	
27	ADMIN. CANOPY TYPE A8	402				15	1 B	20	1			500		WATER FEATURE PUMP #3	28	
29	SPARE					15	1 C	15	1					SPARE	30	
31	SPARE					15	1 A	15	1					SPARE	32	
33	SPARE					15	1 B	15	1					SPARE	34	
35	SPARE					20	2 C	20	2					SPARE	36	
37							A								38	
39	SPARE					20	2 B	20	2					SPARE	40	
41							C								42	
LOAD SUMMARY																
		LTS	REC	MECH	MISC	SPARE	TOTAL					PHASE BALANCE				
CONNECTED LOAD (KVA)		4.3	0.0	1.5	1.5	---	7.3	480				LINE-TO-LINE VOLTS		PHASE A (KVA)		2
DEMAND FACTOR		1.25	NEC	1.00	1.00	20%	---	9				CONNECTED AMPS		PHASE B (KVA)		3
DESIGN LOAD (KVA)		5.4	0.0	1.5	1.5	1.5	9.8	12				DESIGN AMPS		PHASE C (KVA)		3



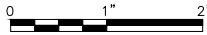
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	I. RINCON
DRAWN	P. McCLINTOCK
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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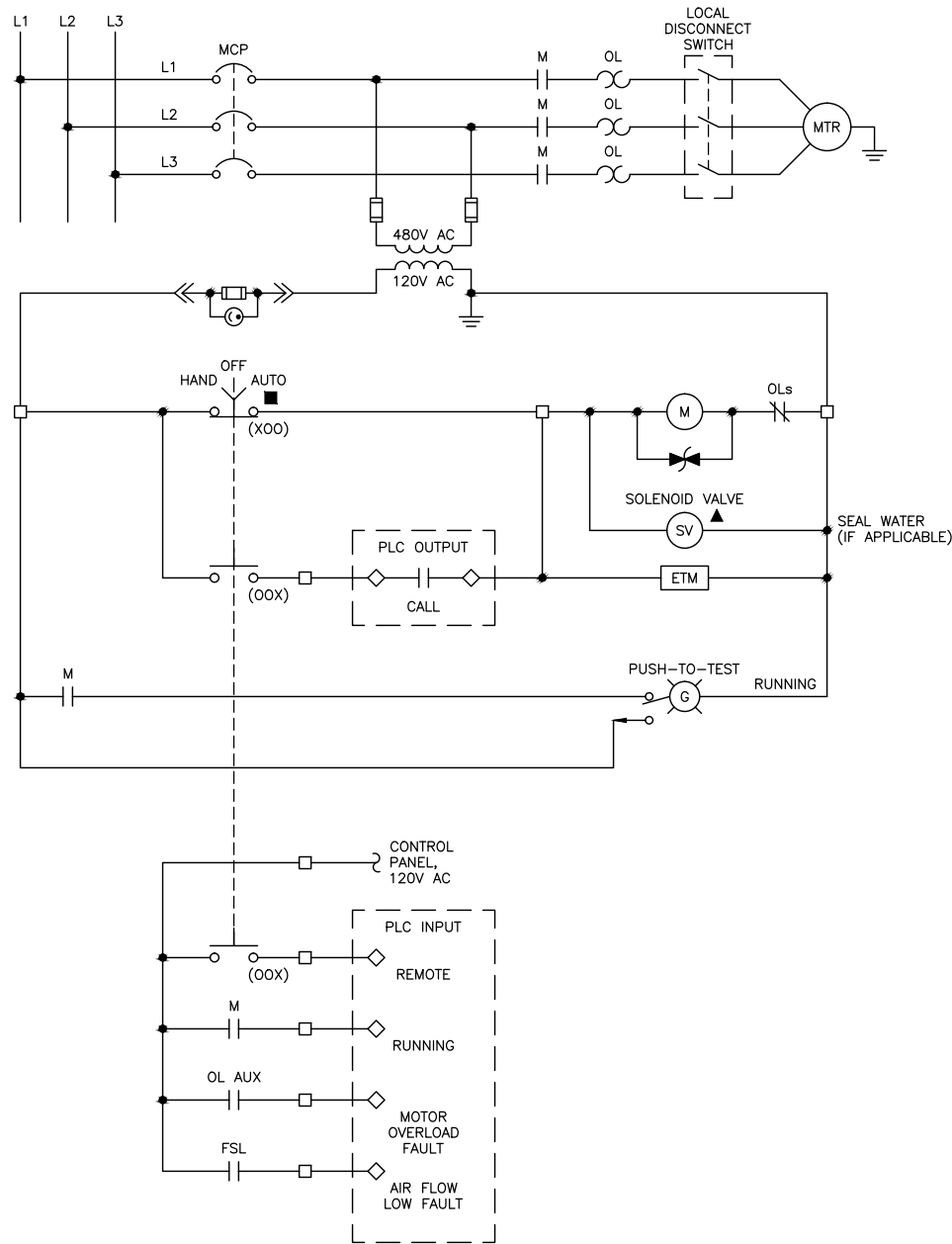
SCREENINGS BUILDING ELECTRICAL PANELBOARD SCHEDULES



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SCALE	NONE

SHEET	000E-08
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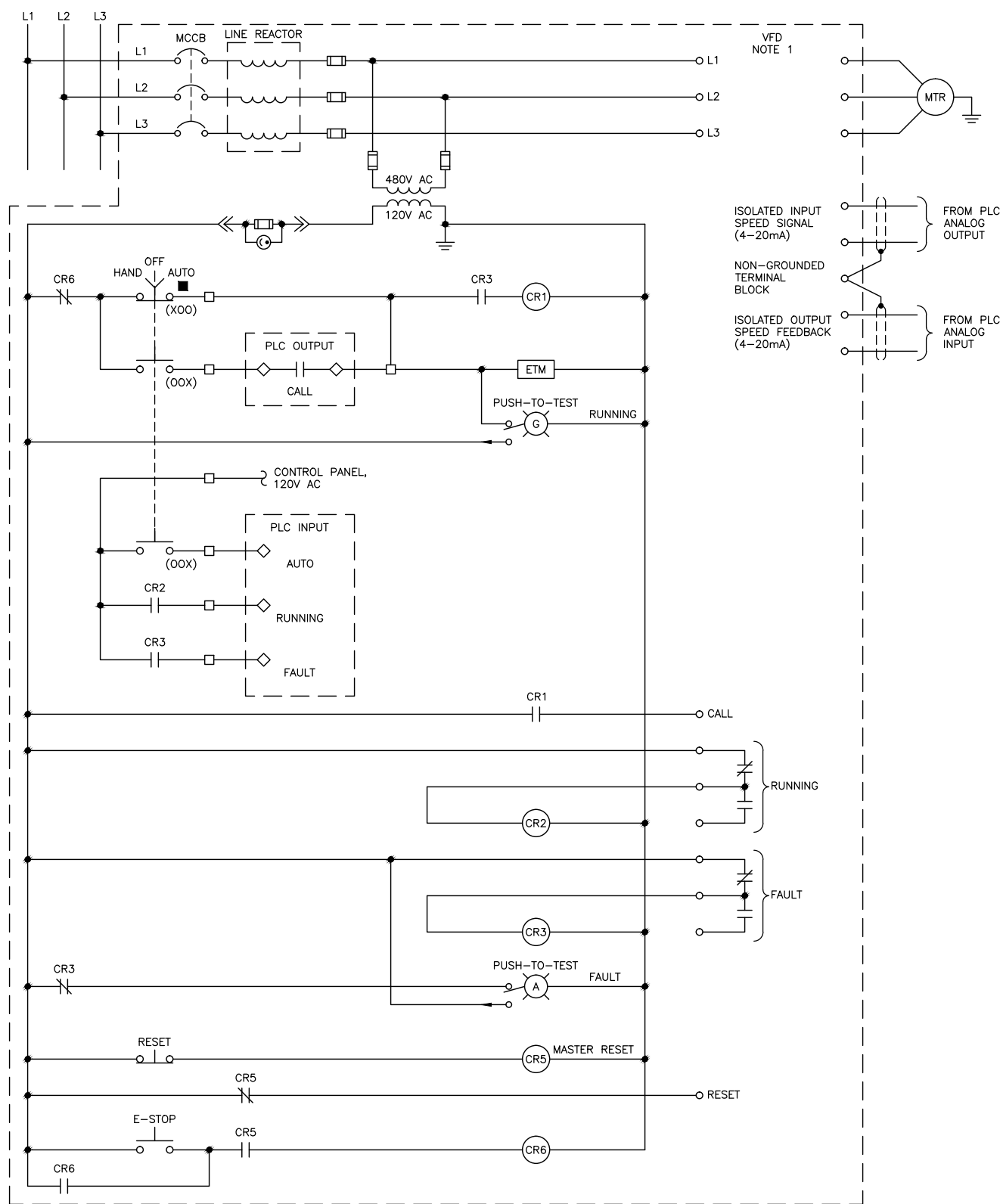
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PROCESS OR FAN MOTOR  
CONTROL DIAGRAM 1001

DEVICE LOCATION LEGEND:

- ▲ FIELD AT MOTOR
- FIELD AT CONTROL STATION
- MCC TERMINAL
- ◇ PLC TERMINAL



DEWATERING AREA AIR SUPPLY FAN DRIVER, VFD-8004

CONTROL DIAGRAM 1002

NOTES:

- CUSTOM ENGINEERED VFD WITH CIRCUIT BREAKER, LINE REACTOR, CONTROL POWER TRANSFORMER, CONTROL RELAYS, INDICATING LIGHTS, ETC. MOUNTED IN FREESTANDING CUSTOM ENCLOSURE.
- ASU-8004 SPEED DEPENDS ON STATUS OF FOUL AIR FAN F-51005 MONITORED BY PLC.



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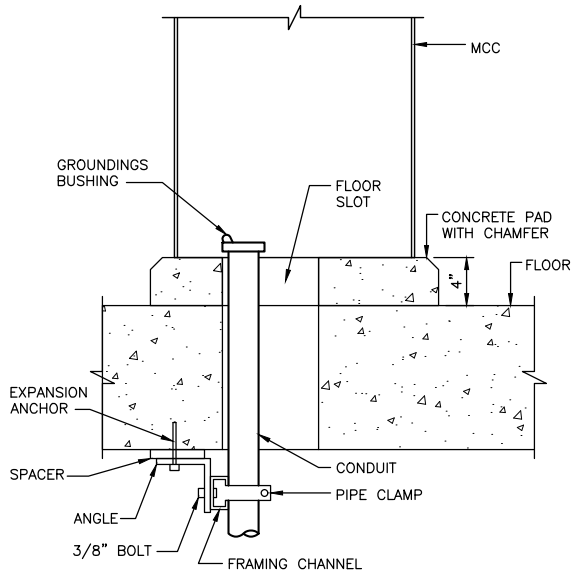
ELECTRICAL  
CONTROL DIAGRAMS



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SCALE	NONE

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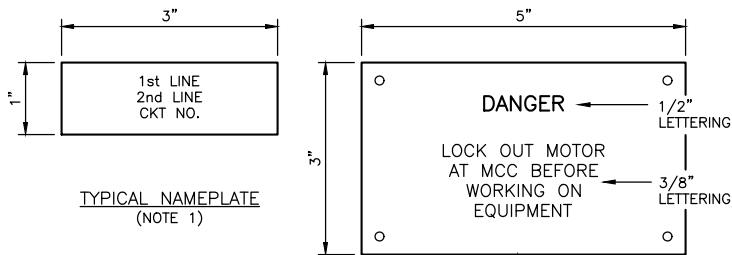
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TYPICAL FLOOR SLOT ENTRY

DETAIL

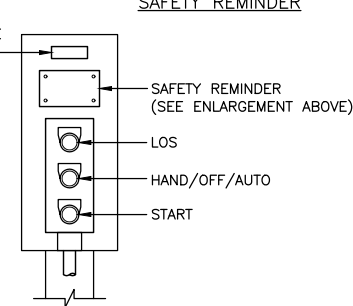
NTS



NOTES:

1. ALL FIELD CONTROL STATIONS SHALL BE IDENTIFIED WITH AN ENGRAVED, PHENOLIC NAMEPLATE. SEE SPECIFICATIONS FOR NAMEPLATE REQUIREMENTS.

NAMEPLATE, NOTE 1  
(SEE TYPICAL NAMEPLATE  
ENLARGEMENT ABOVE)

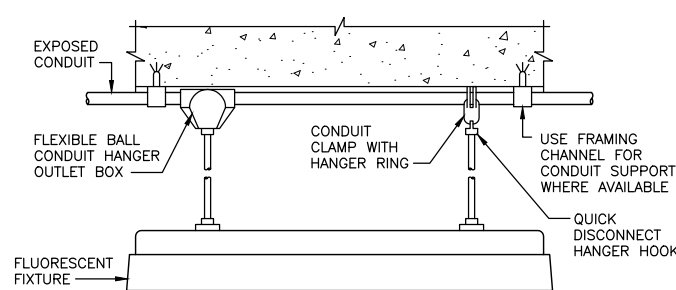


CONTROL STATION

CONTROL STATION NAMEPLATE AND SAFETY REMINDER

DETAIL

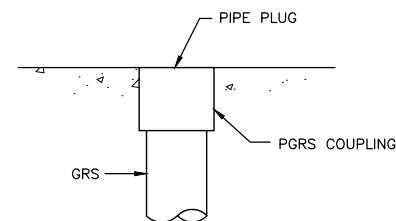
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TYPICAL FLUORESCENT FIXTURE MOUNTING

DETAIL

NTS



IN-FLOOR CONDUIT STUB

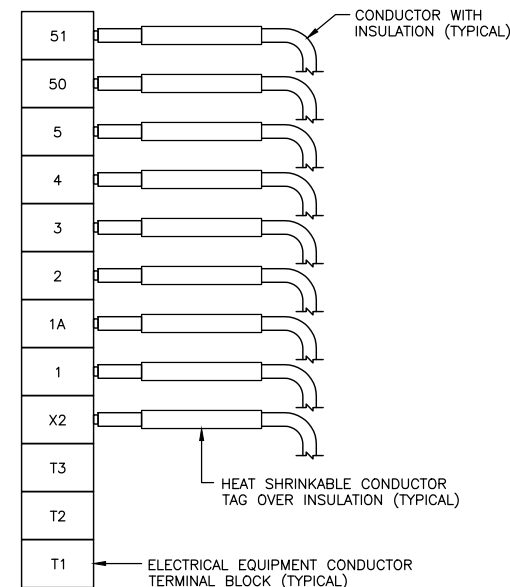
DETAIL

NTS



NOTES:

1. PROVIDE AND INSTALL CONDUCTOR TAGS AT EACH CONDUCTOR TERMINATION.
2. PROVIDE CONDUCTOR TAGS WITH THE NOMENCLATURE AS SHOWN ON THE WIRING DIAGRAMS.



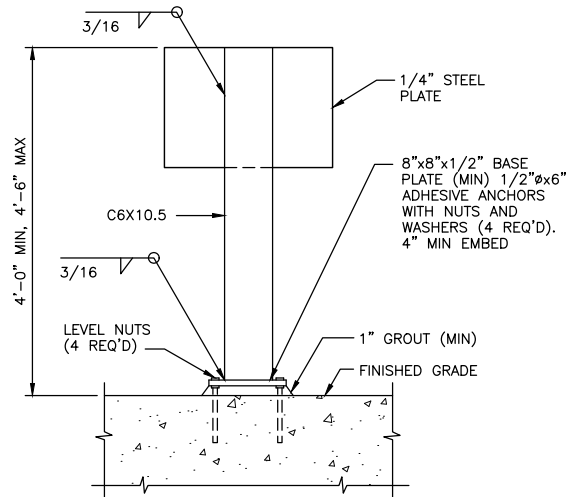
TYPICAL WIRE TAGGING

DETAIL

NTS



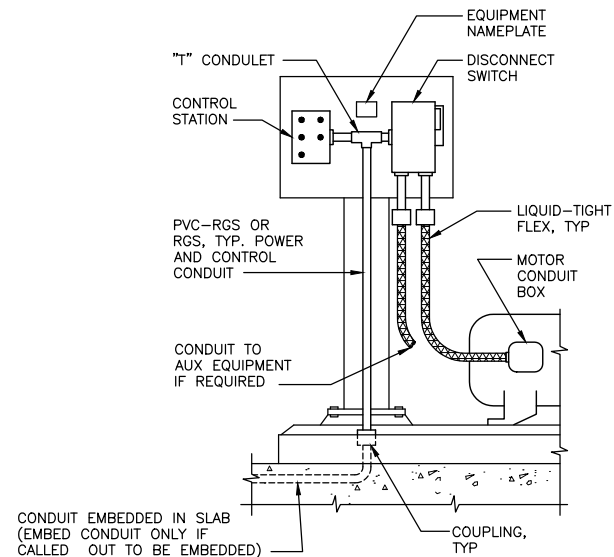
- NOTES:
1. HOT DIP GALVANIZE MOUNTING STAND, BASEPLATE AND 1/4" PLATE AFTER FABRICATION.
  2. PANELS, CONTROL STATIONS, BOXES, AND OTHER MISCELLANEOUS ELECTRICAL STATIONS TO BE MOUNTED UTILIZING THIS DETAIL.



MOUNTING STAND

DETAIL

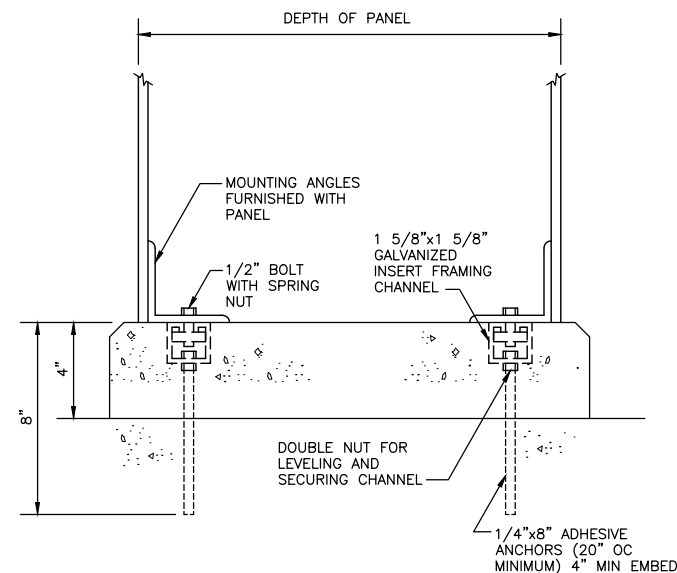
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MOTOR FEED FROM BELOW

DETAIL

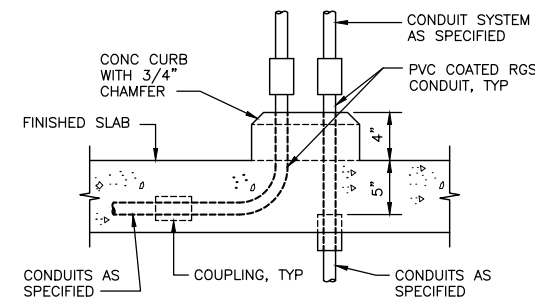
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TYPICAL FREE-STANDING PANEL FOUNDATION

DETAIL

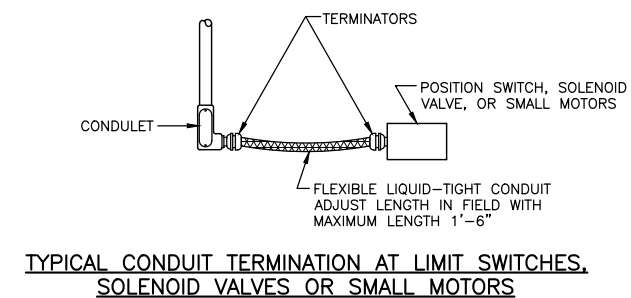
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TYPICAL FLOOR SLAB PENETRATION

DETAIL

NTS



TYPICAL CONDUIT TERMINATION AT LIMIT SWITCHES,  
SOLENOID VALVES OR SMALL MOTORS

DETAIL

NTS



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PROJECT MANAGER	A. MEILLEUR
DESIGNED	I. RINCON
DRAWN	P. McCLINTOCK
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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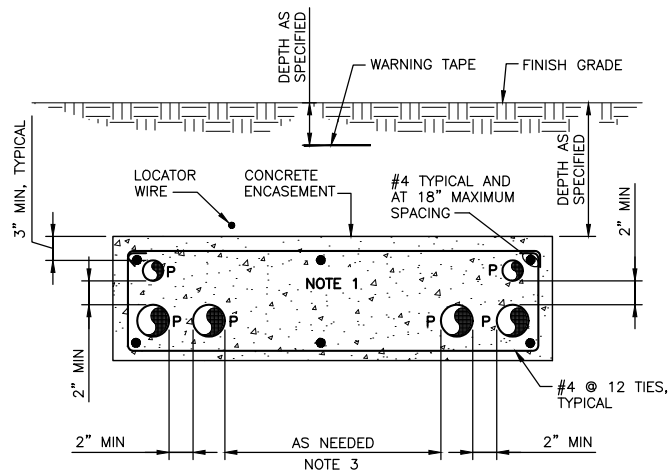
ELECTRICAL  
DETAILS 1



FILENAME	000E-10.dwg
SCALE	AS NOTED

SHEET	000E-10
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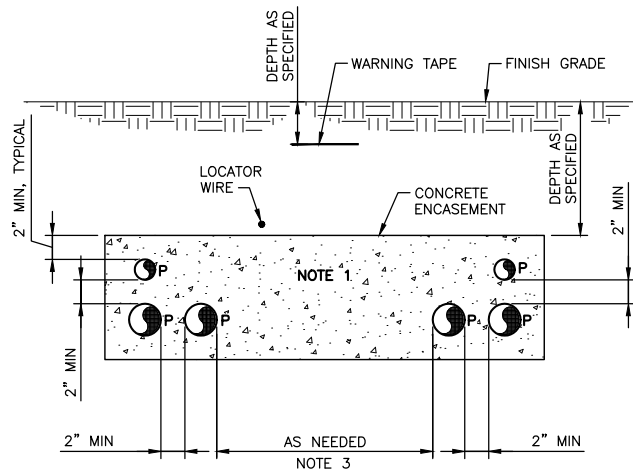


NOTES:

1. NUMBER OF CONDUITS AS REQUIRED FOR THE APPLICATION.
2. P SUBSCRIPT ELECTRICAL POWER OR CONTROL CONDUIT.
3. SEE DUCT SCHEDULE IN SPECIFICATIONS FOR SPECIFIC DUCT BANK REQUIREMENTS.

TYPICAL REINFORCED CONCRETE ENCASED  
DUCT BANK SECTION

DETAIL 11  
NTS

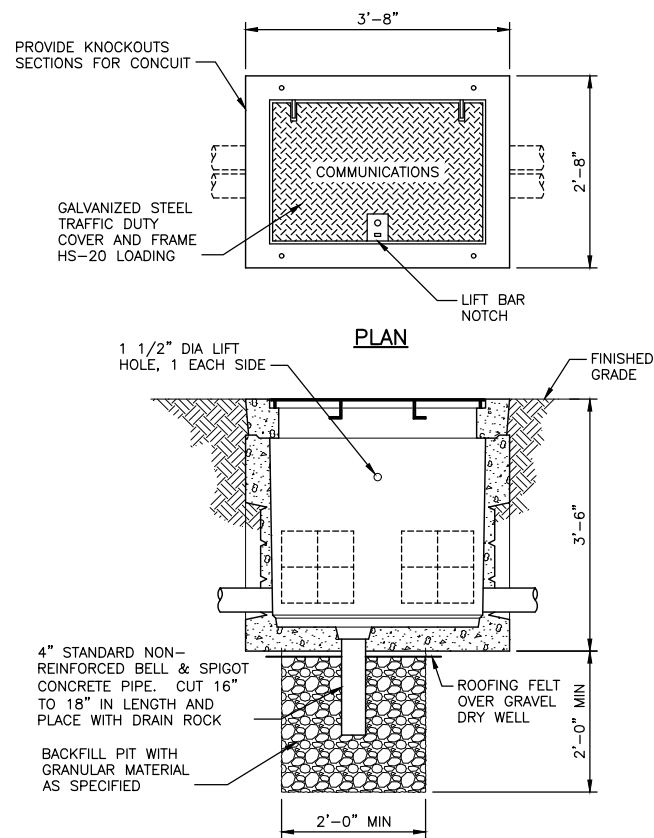


NOTES:

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2. P SUBSCRIPT ELECTRICAL POWER OR CONTROL CONDUIT.
3. SEE DUCT SCHEDULE IN SPECIFICATIONS FOR SPECIFIC DUCT BANK REQUIREMENTS.

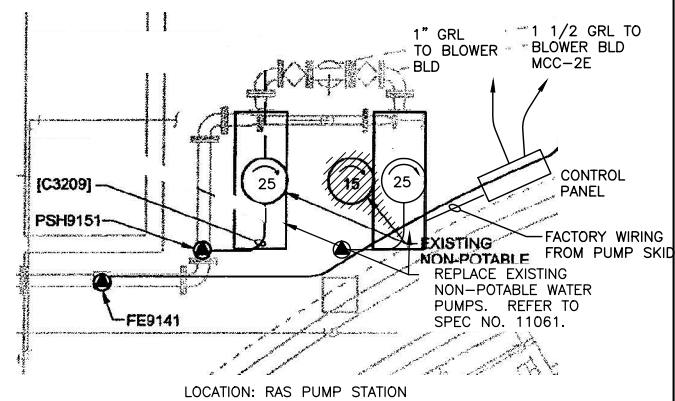
TYPICAL CONCRETE ENCASED  
DUCT BANK SECTION

DETAIL 15  
NTS



SECTION  
COMMUNICATIONS HANDHOLE

DETAIL 12  
NTS

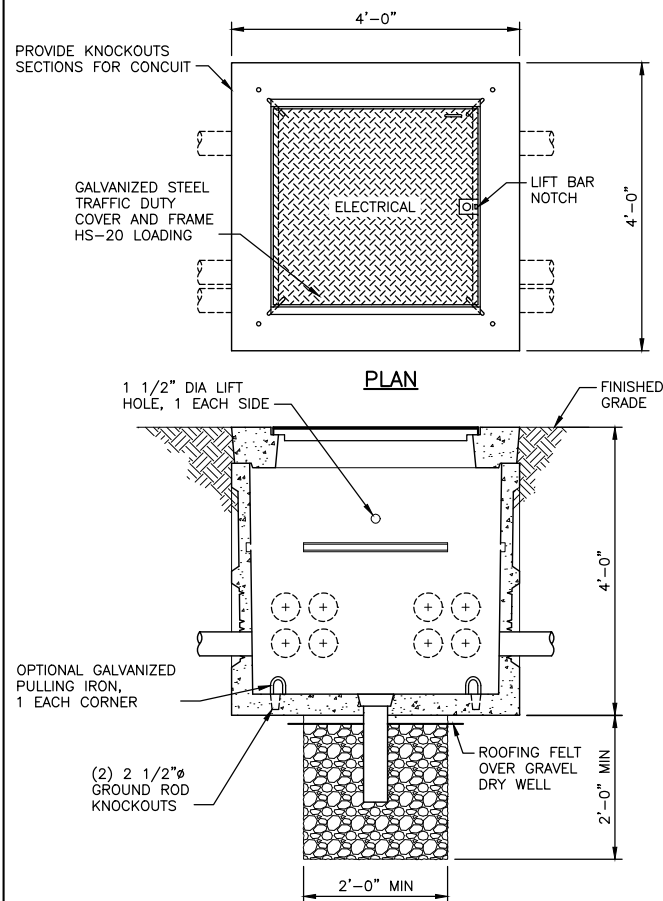


NOTES:

1. ROUTE PSH CONTACT BACK TO PUMP DRIVER. NEW VDFs ARE LOCATED IN CONTROL PANEL AT NPW PUMPS. REPLACE MOTOR AND EXISTING CONTROL WIRES. RUN NEW 2\"/>

NPW PUMP #1 AND PUMP #2

DETAIL 14  
NTS



SECTION  
ELECTRICAL POWER HANDHOLE

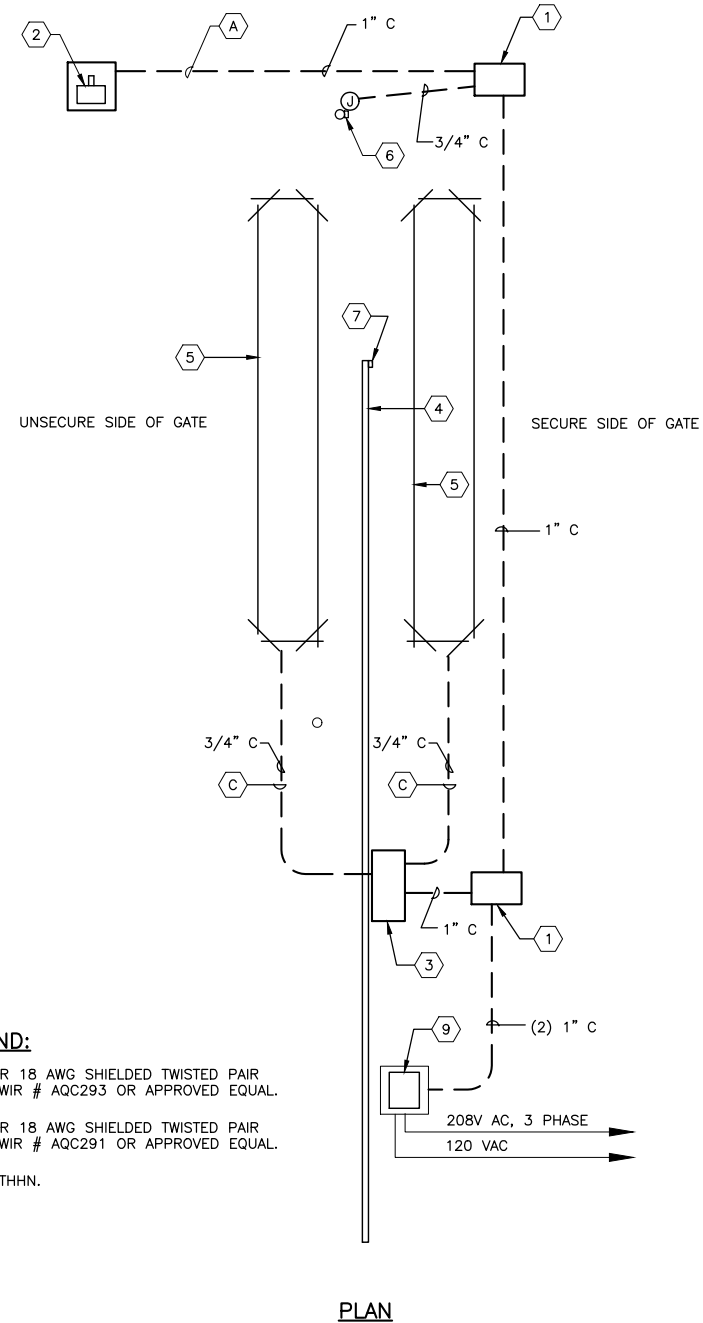
DETAIL 13  
NTS

KEY NOTES:

- 1 WEATHERPROOF HAND HOLE TO BE USED AS A PULL BOX ONLY. DO NOT USE FOR SPLICING.
- 2 GOOSENECK PEDESTAL WITH STAND-ALONE CARD READER.
- 3 GATE MOTOR.
- 4 MOTORIZED CANTILEVER GATE.
- 5 VEHICLE DETECTION SAFETY LOOP.
- 6 BIASED MAGNETIC GATE POSITION SWITCH WITH ARMORED CABLE.
- 7 MAGNET ATTACHED TO GATE.
- 8 WEATHERPROOF JUNCTION BOX.
- 9 NEMA 3R SECURITY ENCLOSURE FOR CARD READER POWER SUPPLIES. 120V AC POWER REQUIRED.

WIRING LEGEND:

- A 2 CONDUCTOR 18 AWG SHIELDED TWISTED PAIR WEST PENN WIR # AQC293 OR APPROVED EQUAL.
- B 2 CONDUCTOR 18 AWG SHIELDED TWISTED PAIR WEST PENN WIR # AQC291 OR APPROVED EQUAL.
- C 2 #14 AWG THHN.



PLAN

GATED ENTRANCE WITH ACCESS CONTROL

DETAIL 16  
NTS



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1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	I. RINCON
DRAWN	L. KELLER
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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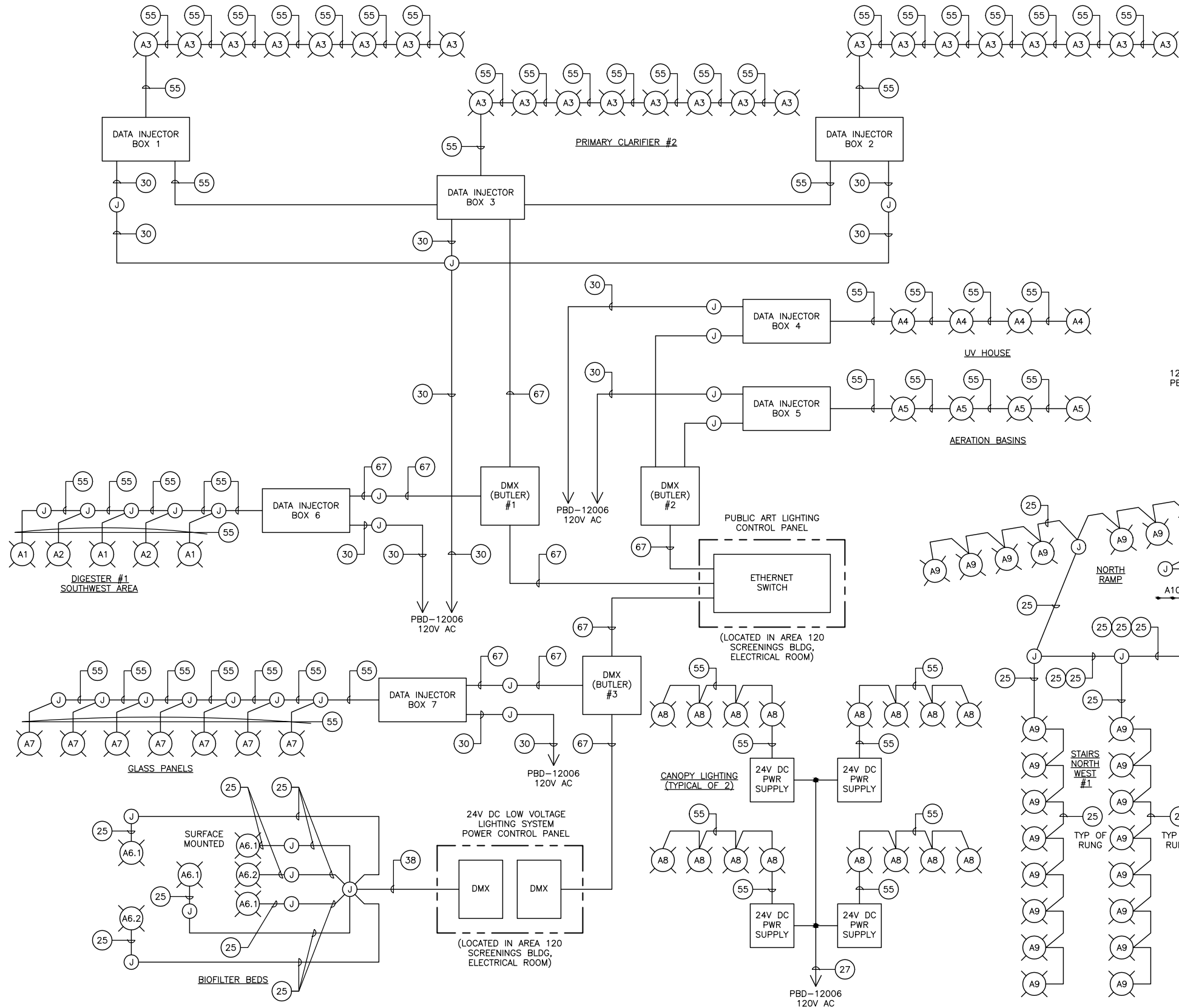
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DETAILS 2



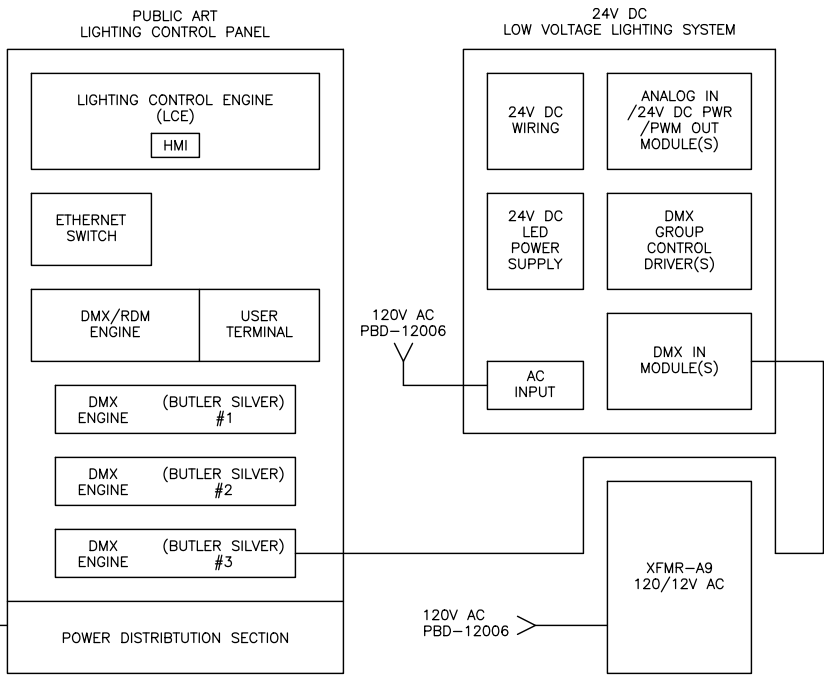
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SCALE	AS NOTED

SHEET	000E-11
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SITE LIGHTING BLOCK DIAGRAM  
NTS



LIGHTING CONTROL PANELS LAYOUT  
NTS



1	APR 2014	RECORD DRAWINGS
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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	I. RINCON
DRAWN	P. MCCLINTOCK
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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ELECTRICAL  
SITE LIGHTING BLOCK DIAGRAM



FILENAME	000E-12.dwg	SHEET
SCALE	NONE	000E-12



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KEY NOTES:

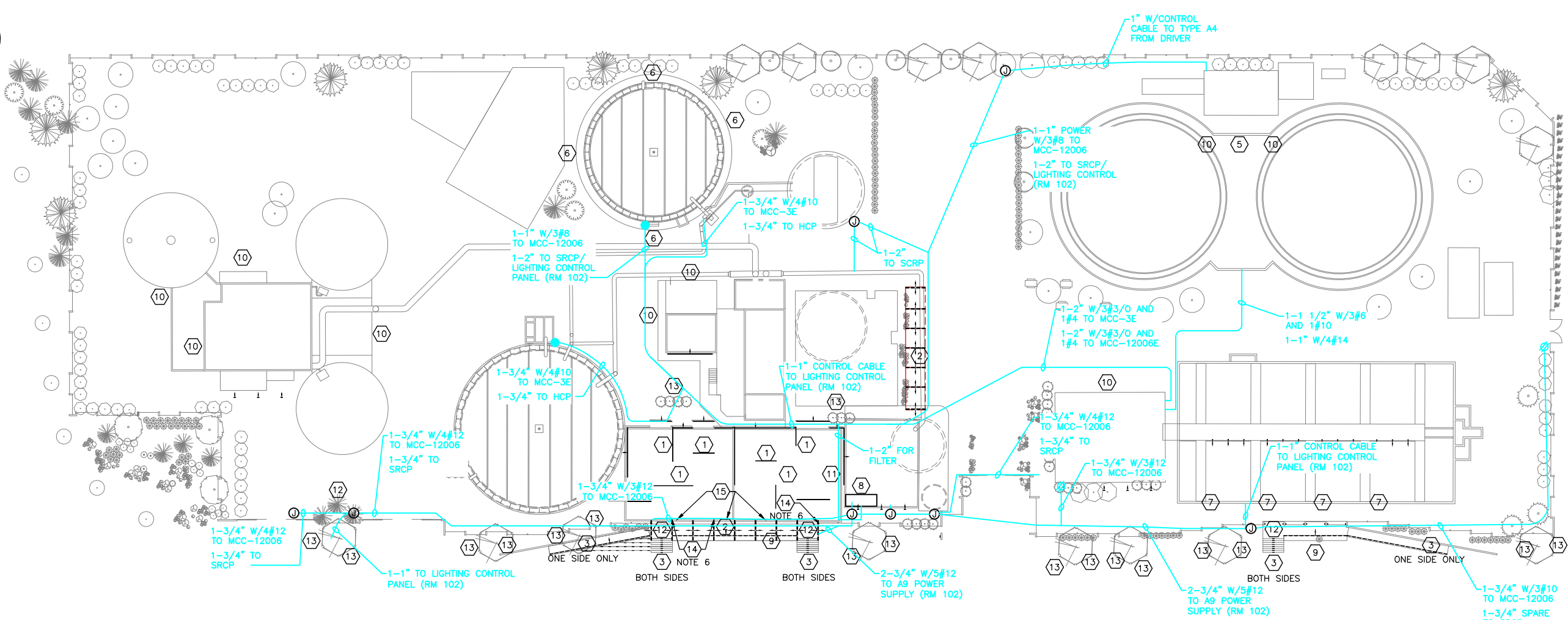
- 1 BIOFILTER BEDS AREA COLOR ACCENT LED LIGHTING SYSTEM TYPE A6.1, A6.2, REQUIRE PROGRAMMABLE LIGHTING CONTROLS TO MIMIC PROCESS, CREATING "WATER EFFECTS".
- 2 CANOPY ACCENT LED LIGHTING SYSTEM TYPE A8.
- 3 RAMP AND STAIRS ACCENT LED LIGHTING SYSTEM TYPE A9.
- 4 LED MARKER LIGHTING TYPE A10. JUST AT TOP OF EACH SET OF STAIRS, MAIN VIEWING PLATFORM ONLY.
- 5 UV HOUSE SW WALL TYPE A4.
- 6 CLARIFIERS OUTSIDE RAILING LIGHTING, TYPE A3.
- 7 AERATION BASIN ACCENT LIGHTING MOUNTED AT TOP LEFT EDGE OF EACH SW WALL, TYPE A5.
- 8 ACCENT LIGHTING CONTROLS SYSTEM MAIN PANEL(S) LOCATED IN SCREENINGS BUILDING ELECTRICAL ROOM.
- 9 UNDER BENCH ACCENT ROPE LED LIGHTING TYPE A12.

KEY NOTES:

- 10 NEW BUILDING EXTERIOR WALL MOUNTED LIGHTING FIXTURES REPLACING OLD FLOOD LIGHTS.
- 11 GLASS PANELS ACCENT LIGHTING TYPE A7.
- 12 DIGESTER #1 FACE WASHING LIGHTING, TYPE A1, A2. MOUNT FIXTURES 5 FEET APART AT FENCE LINE, APPROX 30 FEET FROM DIGESTER FACE. BLUE AND COOL WHITE FIXTURES ALTERNATE.
- 13 LANDSCAPE UP LIGHTING. COORDINATE WITH LANDSCAPE ARCHITECT/OWNER FOR FIELD LOCATION OF THESE PHOTO-CONTROLLED LUMINAIRES.
- 14 WATER-ON-GLASS PANEL SUBMERSIBLE PUMPS LOCATIONS. PROVIDE CONDUIT/CABLE FROM PBD-12006 AT SCREENINGS BUILDING ELECTRICAL ROOM TO A JUNCTION BOX WITH A 115V AC WEATHERPROOF RECEPTACLE AT EACH OF THESE LOCATIONS. SIZE CONDUIT AND WIRES TO MEET APPLICATION AND COMPLY WITH NEC, AS PER MANUFACTURER'S REQUIREMENTS.
- 15 LOCATIONS OF SOUND SPEAKERS ON GLASS AND MOTION SENSORS TO ACTIVATE SOUND SYSTEM. PROVIDE JUNCTION BOXES AND 3/4" W/6-2 PAIR #12 SPEAKER WIRE FROM SPEAKERS TO SOUND CONTROL PANEL. PROVIDE JUNCTION BOXES AND 3/4" W/3-SECURITY WIRE #22, 4 CONDUCTORS EACH FROM MOTION SENSORS TO SOUND CONTROL PANEL. REFER TO ARCHITECTURAL SHEETS FOR SPEAKERS AND SENSORS MOUNTING DETAILS.

NOTES:

1. ELECTRICAL CONTRACTOR SPECIALIZED IN LED ACCENT LIGHTING SYSTEMS DESIGN AND ITS LIGHTING CONTROLS TO PROVIDE COMPLETE DESIGN OF ARCHITECTURAL THEME LIGHTING SYSTEM. SUBMIT PROPOSED ELECTRICAL POWER AND CONTROLS FOR ENGINEER/OWNER REVIEW.
2. ACCENT LED LIGHTING SYSTEMS REQUIRE INBOARD POWER INTEGRATION TECHNOLOGY AND COLOR-CHANGING LED FIXTURES REQUIRE DATA INJECTOR AND LIGHTING FIXTURE CONTROLS.
3. LIGHTING EFFECT TO BE PROGRAMMED AS TO FOLLOW PROCESS ORDER ON THE SITE, FROM "LEFT-TO-RIGHT" IF FACING MAIN ENTRANCE (NORTH-TO-SOUTH).
4. REFER TO ARCHITECTURAL SHEETS FOR BIOFILTER BEDS PATTERN, FENCE, CANOPIES AND OTHER BUILDING'S DETAILS.
5. REFER TO ARCHITECTURAL LIGHTING THEME LIGHTING FIXTURE SCHEDULES FOR CHARACTERISTICS.
6. REFER TO ARCHITECTURAL SHEETS FOR WALL-ON-GLASS PANELS PUMPS AND CONDUIT MOUNTING DETAILS.



NOTE:  
ROUTING REPRESENTS SITE BRANCH CONDUIT ROUTES,  
DUCT BANKS ARE SHOWN ON 000E-01.

ARCHITECTURAL SITE LIGHTING PLAN  
SCALE: NONE



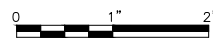
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ELECTRICAL  
OVERALL ARCHITECTURAL SITE LIGHTING



FILENAME	000E-13.dwg
SCALE	AS NOTED

SHEET	000E-13
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LIGHTING FIXTURE SCHEDULE					
LTR	MANUFACTURER	CATALOG NO.	DESCRIPTION	LAMP	MOUNTING
A	GUTH	"PLASCOLUME" ACS77-82-120-EB/PI/HL HAZARDOUS LOCATIONS	HAZARDOUS LOCATIONS, CLASS I, DIVISION 2, INDOOR, HEAVY DUTY INDUSTRIAL FLUORESCENT, WET LOCATIONS LISTED, 1'x4', 2-LAMP, 22 GAGE 304 STAINLESS STEEL HOUSING, SEALED END CAPS, SOLID WHITE REFLECTOR, 100% DR VIRGIN ACRYLIC LENS WITH GASKETED DOOR, 304 STAINLESS STEEL EXPOSED METAL PARTS, ENERGY SAVING BALLAST, 120 VOLT, 60 HZ.	TWO 32 WATT, F32-T8 FLUORESCENT	INTERIOR CEILING PENDANT (NO CHAIN) +12' AFF
B	GUTH	"PLASCOLUME" ACS77-82-120-EB/MB90/HL HAZARDOUS LOCATIONS	HAZARDOUS LOCATIONS, CLASS I, DIVISION 2, INDOOR, HEAVY DUTY INDUSTRIAL FLUORESCENT, WET LOCATIONS LISTED, 1'x4', 2-LAMP, 22 GAGE 304 STAINLESS STEEL HOUSING, SEALED END CAPS, SOLID WHITE REFLECTOR, 100% DR VIRGIN ACRYLIC LENS WITH GASKETED DOOR, 304 STAINLESS STEEL EXPOSED METAL PARTS, WET LOCATIONS LISTED, ENERGY SAVING BALLAST, 120 VOLT, 60 HZ.	TWO 32 WATT, F32-T8 FLUORESCENT	INTERIOR WALL SURFACE +8' AFF
C	LITHONIA	LHZ612-S-1-G- 120/277-H0806-SDA	INTERIOR, CLASS I, DIVISION 2, BACK-UP BATTERY POWERED COMBINATION EMERGENCY EGRESS AND EXIT SIGN, ADJUSTABLE LIGHT HEADS, GREEN LED EXIT LETTERING ON WHITE BACKGROUND, CORROSION RESISTANT, 90-MINUTE MINIMUM LIGHT FROM INTEGRAL BATTERIES, NEMA 4X HAZARDOUS CONDITIONS, NONMETALLIC, ENCLOSED AND GASKETED, 120 VOLT, 60 HZ, UL 844 LISTED.	TWO 8 WATT MIN, 6 VOLT SEALED- BEAMED HALOGEN, ONE PER HEAD, LED EXIT ILLUMINATION	INTERIOR WALL +7.5' AFF
D	COOPER CROUSE-HINDS	"LIGHT-PAK" N2LPS12222	INTERIOR, CLASS I, DIVISION 2, BACK-UP BATTERY POWERED EMERGENCY EGRESS UNIT, ADJUSTABLE LIGHT HEADS, CORROSION-RESISTANT, 90-MINUTE MINIMUM LIGHT FROM INTEGRAL BATTERIES, MARINE WET LOCATION SUITABILITY NEMA 4X HAZARDOUS CONDITIONS, NONMETALLIC, ENCLOSED AND GASKETED, POWER SUPPLY 120VAC INPUT, 12VDC OUTPUT, 60 HZ; 28 WATTS MAX.	12 VDC; LAMP: 3 WATT LED	INTERIOR WALL +7.5' AFF
E	COOPER CROUSE-HINDS	EVLEDBX2201 HOUSING AND GLOBE GUARD	INDOOR, WHITE LED, CLASS I, DIVISION 1, TYPE 4X, MARINE, WET LOCATIONS AND HOSE-DOWN ENVIRONMENTS, UL 844 LISTED, FACTORY LEADED, NO EXTERNAL SEALS REQUIRED, AMBIENT TEMPERATURE -30°C TO + 55°C BODY, MOUNTING MODULES AND GUARD, COPPER-FREE ALUMINUM WITH CORRO-FREE EPOXY POWDER COAT, EXTERNAL HARDWARE STEEL, GLOBE-HEAT AND IMPACT RESISTANT GLASS.	36 WATTS, 120 VAC, 24 LEDS	SCREENINGS BUILDING INTERIOR WALL, CHANNEL AREA
F	GUTH	G700-722 SYSTEM CONTROL -EL1-67 LIGHT HEAD 12V DC 22 WATT -ES1-G-102 EXIT SIGN 12V DC, 12 WATT	CLASS I, DIVISION 1 LISTED, EXPLOSION-PROOF EMERGENCY SYSTEM, EMERGENCY EGRESS LIGHTING AND EXIT SIGNAGE, DIE-CAST COPPER FREE ALUMINUM HOUSING, 120V AC INPUT, LONG LIFE MAINTENANCE-FREE, PURE LEAD BATTERY, 90 MINUTE LIGHT FROM BATTERIES, AC READY LIGHT, LOW VOLTAGE BATTERY DISCONNECT, AC LOCK-OUT, BROWN-OUT PROTECTION, INCLUDES SYSTEM CONTROL HOUSING 12V DC, 75 DC WATTAGE, SINGLE LIGHTING HEAD AND EXIT SIGN GREEN LETTERS ON WHITE BACKGROUND. NORMALLY OFF, UL 844 LISTED.	HEAT AND IMPACT RESISTANT, CLEAR GLASS, PL13 FLUORESCENT, 120V AC	INTERIOR WALL SURFACE
G	GUTH	"PLASCOLUME" ACS67-82-120-EB/PI	INDOOR, GENERAL, HEAVY DUTY INDUSTRIAL FLUORESCENT, WET LOCATIONS, 1'x4', 2 LAMP, 22 GAGE 304 STAINLESS STEEL HOUSING, SEALED END CAPS, SOLID WHITE REFLECTOR, 100% DR VIRGIN ACRYLIC LENS WITH GASKETED DOOR, 304 STAINLESS STEEL EXPOSED METAL PARTS, WET LOCATIONS LISTED, ENERGY SAVING BALLAST, 120 VOLT, 60 HZ.	TWO 32 WATT, F32-T8 FLUORESCENT	INTERIOR CEILING PENDANT (NO CHAIN) +12' AFF
H	GUTH	"PLASCOLUME" ACS67-82-120-EB/MB90	INDOOR, GENERAL, HEAVY DUTY INDUSTRIAL FLUORESCENT, WET LOCATIONS, 1'x4', 2 LAMP, 22 GAGE 304 STAINLESS STEEL HOUSING, SEALED END CAPS, SOLID WHITE REFLECTOR, 100% DR VIRGIN ACRYLIC LENS WITH GASKETED DOOR, 304 STAINLESS STEEL EXPOSED METAL PARTS, WET LOCATIONS LISTED, ENERGY SAVING BALLAST, 120 VOLT, 60 HZ.	TWO 32 WATT, F32-T8 FLUORESCENT	INTERIOR WALL SURFACE +10' AFF
J	LIGHTGUARD	DXLN1GW	INDUSTRIAL SELF POWERED EXIT SIGN, 120V, CORROSION RESISTANT, 90 MINUTE EMERGENCY ILLUMINATION, DIE CAST HOUSING, LED LIT, GREEN LETTERS WITH WHITE BACKGROUNDS, NICKEL CADMIUM BATTERY. SINGLE-FACED. WALL MOUNTED CONFIGURATION AND ACCESSORIES.	LED	WALL
K	LIGHTGUARD	DXLN2GW	INDUSTRIAL SELF POWERED EXIT SIGN, 120V, CORROSION RESISTANT, 90 MINUTE EMERGENCY ILLUMINATION, DIE CAST HOUSING, LED LIT, GREEN LETTERS WITH WHITE BACKGROUNDS, NICKEL CADMIUM BATTERY. DOUBLE-FACED. CEILING MOUNTED CONFIGURATION AND ACCESSORIES.	LED	CEILING
L	LITHONIA	"WFL2" WFL2150MRM120- LPI-PE-BVG-DBL	EXTERIOR, METAL HALIDE, TEMPERATURE REDUCING INFRARED LENS, FACETED REFLECTOR, EXTRUDED ALUMINUM BODY WITH CAST END CAPS, ROTATING HOUSING BODY, CAST ALUMINUM DOOR FRAME HINGED AND SECURED BY STAINLESS STEEL FASTENERS, CLOSED CELL SILICONE GASKET TO PREVENT PENETRATION OF MOISTURE AND DUST, 120V AC. INTEGRAL PHOTO-ELECTRIC CONTROL. BLACK FRAME AND BRACKET.	ONE 150 WATT METAL HALIDE	EXTERIOR WALL SURFACE

FIXTURE SCHEDULE NOTES:

1. FIXTURE MOUNTING HEIGHTS ARE THE PREFERRED LEVEL OF FEET ABOVE FINISHED FLOOR (AFF). MOUNTING HEIGHTS AND LOCATIONS SHALL BE FIELD ADJUSTED AS PRACTICAL TO AVOID INTERFERENCES WITH PIPING, HVAC EQUIPMENT, DUCTWORK, SKYLIGHTS, ETC.

ARCHITECTURAL ACCENT LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG No.	DESCRIPTION	QTY.	LAMP	MOUNTING	SEE NOTE BELOW
A1	TRAXON	AC.XB.WG.53421 LED BLUE, 20 DEGREE BEAM ANGLE	IP 66 OUTDOOR LUMINAIRE WASH SHIELD, 100-240 V AC INPUT VOLTAGE. LED CURRENT 350 mA DC. FIXTURES WILL BE MOUNTED FIVE FEET APART AT FENCE LINE, APPROX. THIRTY FEET FROM DIGESTER FACE. BLUE AND CW FIXTURES ALTERNATE AND WILL BE PROGRAMMED INDIVIDUALLY. BLUE LED. CLEAR COVER.	3	LED BLUE 53 WATTS	ON FENCE ACROSS DIGESTER TO LIGHT UP AREA OF DIGESTER 1 FACE	1,2,3
A2	TRAXON	AC.W36.53611 LED CW 10 DEGREE BEAM ANGLE	IP 66 OUTDOOR LUMINAIRE WASH SHIELD, 100-240 V AC INPUT VOLTAGE. LED CURRENT 350 mA DC. FIXTURES WILL BE MOUNTED FIVE FEET APART AT FENCE LINE, APPROX. THIRTY FEET FROM DIGESTER FACE. BLUE AND CW FIXTURES ALTERNATE AND WILL BE PROGRAMMED INDIVIDUALLY. COOL WHITE LED. CLEAR COVER.	2	CW LED, 53 WATTS	ON FENCE ACROSS DIGESTER TO LIGHT UP AREA OF DIGESTER 1 FACE	1,2,3,
A3	TRAXON	AC.XB.W2.53861 LED DW, 40 DEGREE BEAM SPREAD	IP 66 OUTDOOR LUMINAIRE WASH SHIELD, 100-240 V AC INPUT VOLTAGE. DYNAMIC WHITE LED CURRENT 350 mA DC. FIXTURES WILL BE MOUNTED APPROXIMATELY 9.5 FEET APART ON OUTSIDE EDGE OF CLARIFIER. PROVIDE ALUMINUM ARM FOR MOUNTING FIXTURE ABOVE CLARIFIER EDGE.	24	DW LED 53 WATTS	PRIMARY CLARIFIER #2. PROVIDE ARM EXTENSION	1,2,3
A4	TRAXON	AC.XB.WG.53111 LED RGB 10 DEGREE BEAM SPREAD	IP 66 OUTDOOR LUMINAIRE WASH SHIELD, 100-240 V AC INPUT VOLTAGE. RGB LED CURRENT 350 mA DC. MOUNT AT TOP EDGE OF SOUTH WALL, IN LINE WITH EXISTING FLOODLIGHTS THAT ARE AT ABOUT SIXTEEN FEET HIGH, SPACE EQUIDISTANT FROM EACH OTHER.	4	RGB LED 53 WATTS	UV HOUSE SOUTH WALL	1,2,3
A5	TRAXON	AC.XB.W1-18 LED WW 30 DEGREE BEAM SPREAD	IP 66 OUTDOOR LUMINAIRE WASH SHIELD, 100-240 V AC INPUT VOLTAGE. LED CURRENT 350 mA DC. MOUNT AT TOP LEFT EDGE OF EACH AERATION BED SW WALL.	4	WW LED 28 WATTS	AERATION BEDS WALL	1,2,3
A6.1	LIGHTWILD	LW-TILE-FLOOR-RECT- 2.4.CW 24 IN. TILE	IP65 TOTAL LIGHT WILD RECTANGULAR TILE OUTDOOR LUMINAIRE LOW VOLTAGE POWER SUPPLY 24 VDC 8.7 WATTS PER TILE. COOL WHITE. LOW VOLTAGE POWER SUPPLY 24 VDC REQUIRED.	6	8.7 WATTS 24" TILE, 24 VDC	BIOFILTRATION BEDS	1,2,3
A6.2	LIGHTWILD	LW-TILE-FLOOR-RECT- 2.4.CW-36 IN. TILE	IP65 TOTAL LIGHT WILD RECTANGULAR TILE OUTDOOR LUMINAIRE LOW VOLTAGE POWER SUPPLY 24 VDC 11.6 WATTS PER TILE. COOL WHITE, LOW VOLTAGE POWER SUPPLY 24 VDC REQUIRED.	3	11.6 WATTS 36" TILE, 24 VDC	BIOFILTRATION BEDS	1,2,3
A7	TRAXON	AC.XB.L3-DW, 10 DEGREE BEAM SPREAD	IP 66 OUTDOOR LUMINAIRE GRAZE SHIELD, 100-240 V AC INPUT VOLTAGE. DYNAMIC WHITE LED CURRENT 350 mA DC.	7	53 WATTS	CHANNEL GLASS WALLS	2,4
A8	LIGHTWILD	LW-LUMPWRILT-M WW-48-EXT, 60 DEGREE BEAM SPREAD	TOTAL LUMEN POWER STANDARD 2.1 LINEAR FIXTURES 4-FT LONG ADJUSTABLE CLIPS FOR SURFACE MOUNTING, WARM WHITE LED. QUANTITY BASED ON NINE I-BEAMS, 7 CENTRAL I-BEAMS WILL HAVE ONE FIXTURE ON EACH SIDE; TWO I-BEAM END SUPPORTS WILL HAVE FIXTURE MOUNTED ON INSIDE WELL ONLY. USE ADJUSTABLE MOUNTING CLIP TO CAST LIGHT ONTO GLASS CANOPY. LOW VOLTAGE POWER SUPPLY 24 VDC.	32	WW LED 22.6 WATTS 24 VDC	VIEWING PLATFORM CANOPY, I-BEAMS	1,2,3
A9	VISTAPRO	PRO-SL-5222-P-LCS- ND WITH CONCRETE MOUNTING KIT	OUTDOOR IP 66 STEPLIGHTS INPUT VOLTAGE 6-15 VAC. NINE STEP LIGHTS ON ONE CURB SIDE OF EACH RAMP, BOTH VIEWING PLATFORMS. SPACING BETWEEN STEP LIGHTS 6.5 FT ALONG CURB. SIXTEEN STEP LIGHTS ON EACH SET OF EIGHT STEPS (64 TOTAL), BOTH VIEWING PLATFORMS (4 SETS OF 8 STEPS). 3 EMITTER, LOW VOLTAGE WITH ELECTRONIC DRIVE.	82	LED LC-5-ND 6-15 VAC	RAMP & STAIRS USE JBCEP-150 CONCRETE MOUNTING KIT	2,4
A10	TRAA	GDG-30 W PVD SATIN W/FB-CP5-1 CONCRETE POUR SLEEVE	OUTDOOR IP66 MARKER LIGHTS, 80 DEGREE BEAM SPREAD BLUE LED. PLACE AT TOP OF MAIN VIEWING PLATFORM STAIRS ONLY (2 SETS OF FIVE). PROVIDE EIGHT FEET MOUNTING CHANNEL WITH PRISMATIC LENS.	10	LED BLUE 120 VAC	MAIN VIEWING PLATFORM, TOP OF STAIRS ONLY	2,4
A11	MCGRAW EDISON	ISS-70-JMP-120-25-BZ- LAMP-F-P	OUTDOOR IP 66 EGRESS CORROSION RESISTANT LIGHT QUARTER SPHERE PULSE STRIKE METAL HALIDE, 120 VAC INCLUDE LAMP, FUSE, PHOTOCONTROL.	TBD	MP MH 70 WATTS 120 VAC	WALL MOUNT SCONE	2,4
A12	BRUCK ORION BELT	ITEM#135401-1, ITEM #70438, ITEM # 135912	WARM WHITE LED ROPE TO RUN UNDER ENTIRE LENGTH OF BENCH, MAXIMUM 75 FEET FACTORY SUPPLIED LENGTH. PROVIDE 8-FT MOUNTING CHANNEL WITH PRIMATIC LENS. PROVIDE 96 WATT DRIVER CHARACTERISTICS 100-277 VAC, 50/60 HZ, 24 VDC OUTPUT.	2	WW LED ROPE 24 VDC	UNDER BENCH MOUNTING CHANNEL	2,4
A13	VISTA	1079-G-W-FL-M-120 JB-200 JUNCTION BOX JBCEP-150 CONCRETE POUR KIT WHERE NECESSARY	OUTDOOR CORROSION RESISTANT LANDSCAPE LED UPLIGHT. HOUSING: DIE-CAST, COPPER FREE ALUMINUM. SHROUD: MEDIUM SHROUD INTEGRALLY MOLDED WITH HOUSING AND AIMABLE 359 DEGREES ABOUT KNUCKLE BASE. LENS: CLEAR SODA LIME GLASS. FINISH: GREEN POLYESTER POWDER-COAT FINISH. OPTICS: INJECTION-MOLDED OPTICAL GRADE ACRYLIC. 120 V. UL 8750, 1598 LISTED, CONSTANT CURRENT DRIVER OUTPUT, POWER INPUT 17 WATTS. ALL FASTENERS STAINLESS STEEL. PREWIRED WITH 200 DEGREES CELSIUS RATED WIRE AND GROUNDED LEAD. MOUNTING: INTO THREADED HUBS IN JUNCTION BOXES, GROUND STAKES, TREE MOUNT BOXES, OR MOUNTING CANOPIES. COORDINATE WITH OWNER/ARCHITECT.	16	LED 120 V UP LIGHT 12.6 WATTS	LANDSCAPE UPLIGHT, MOUNT ON BASE	2,4

NOTES:

1. LED PROGRAMMABLE LIGHTING INCLUDES: LIGHTING CONTROL ENGINE (LCE); ETHERNET SWITCH; BUTTLER SILVER (DMX/RDM ENGINE); DATA INJECTOR; MANUFACTURER DATA CABLES; ENDCAP DATA TERMINATOR AND CONTROLLER PAD. CONTRACTOR TO DESIGN FUNCTIONAL AND COMPLETE PUBLIC ART SHOW, INCLUDING ACCENT LIGHTING, WATER ON GLASS PANELS AND SOUND EFFECTS.
2. REFER TO ARCHITECTURAL DETAIL SHEETS FOR MOUNTING DETAILS.
3. ALL FIXTURE LOCATIONS TO BE FIELD LOCATE AND VERIFIED BEFORE ORDERING AND MOUNTING. SEE PROGRAMMING NARRATIVES FOR INDIVIDUAL LED LUMINAIRE PROGRAMMING.
4. DUSK TO DAWN PHOTOCELL (PHOTOELECTRIC) CONTROLLED.



1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	I. RINCON
DRAWN	P. McCLINTOCK
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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ELECTRICAL  
LIGHTING FIXTURE SCHEDULE



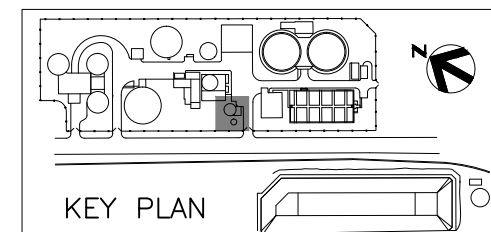
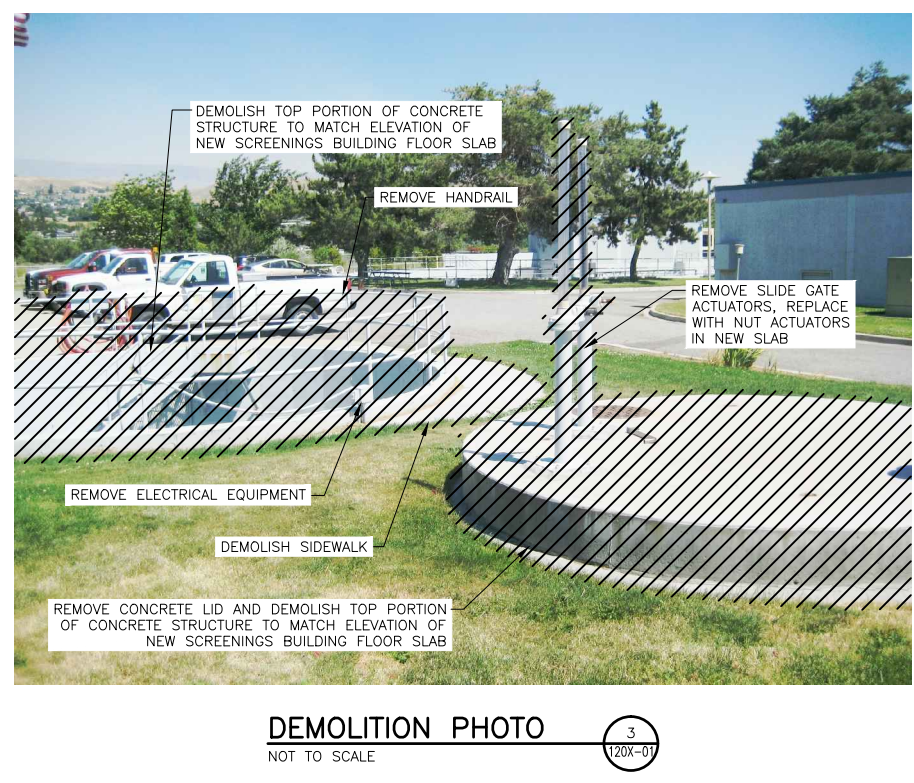
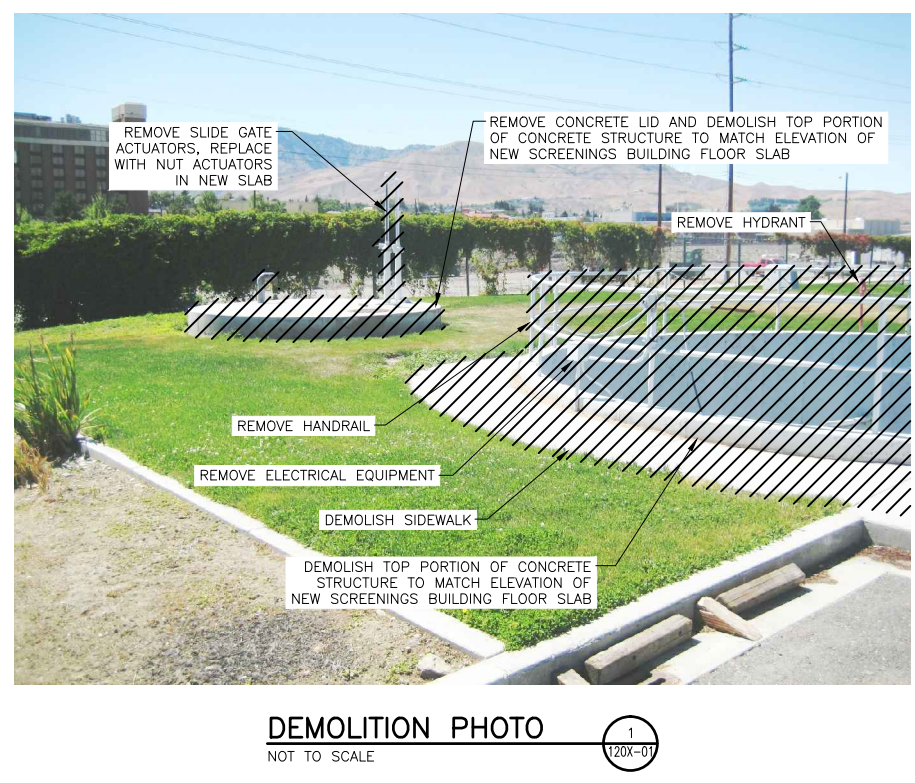
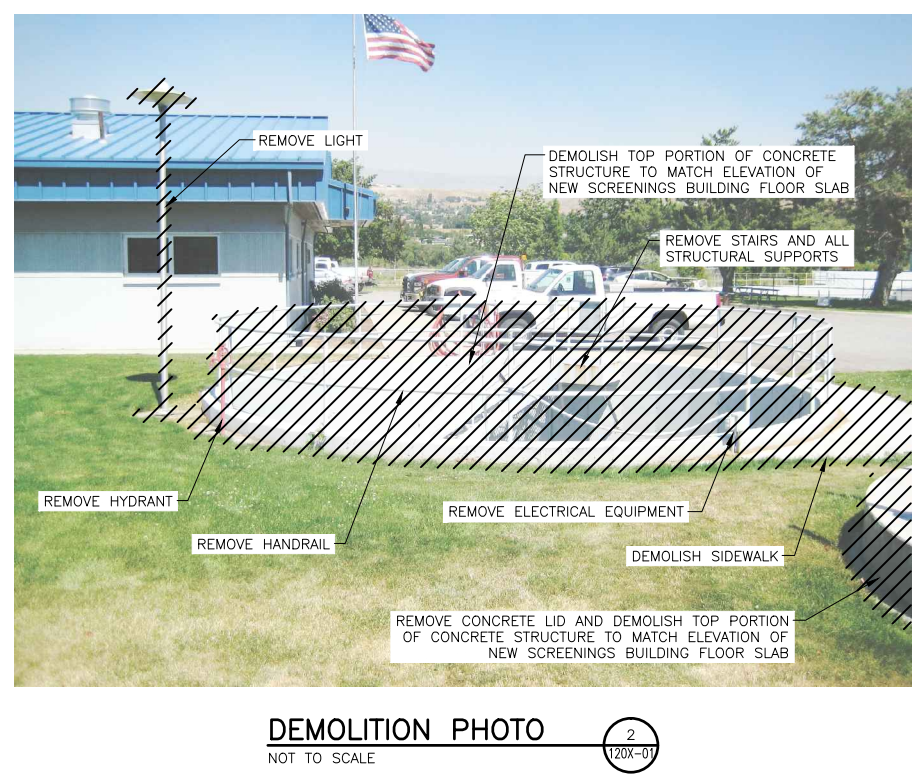
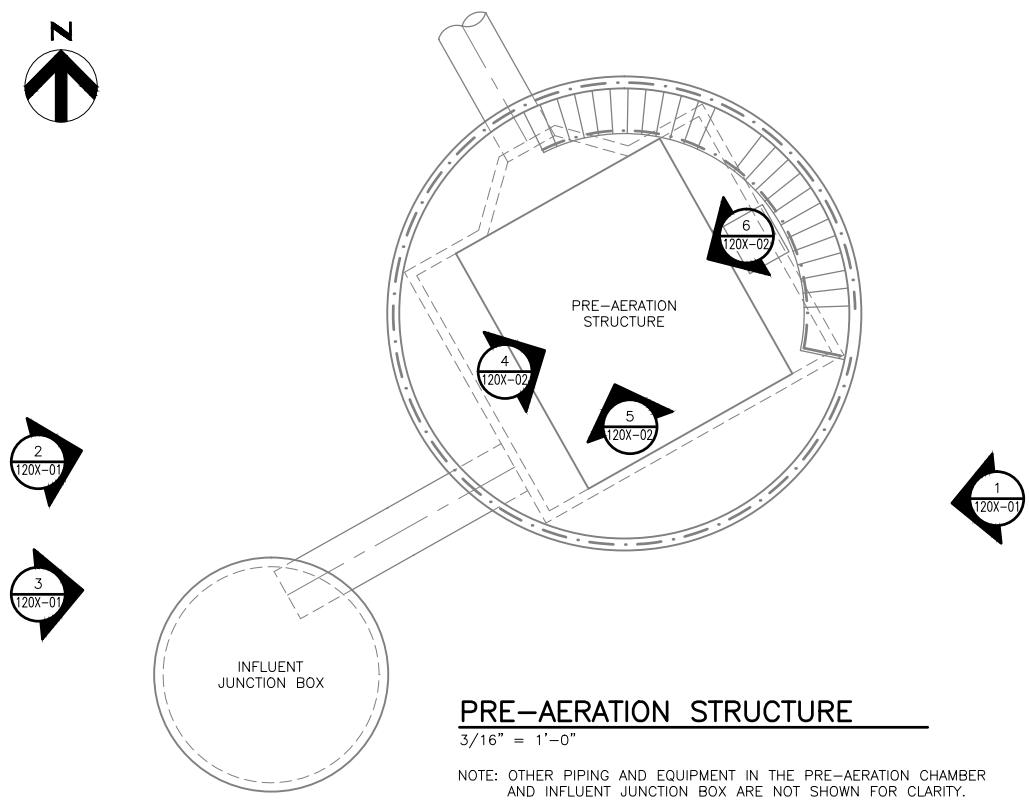
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120X-01



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0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	S. CHILUKURI
DRAWN	B. LILLY
CHECKED	J. KOCH
PROJECT NUMBER	171097

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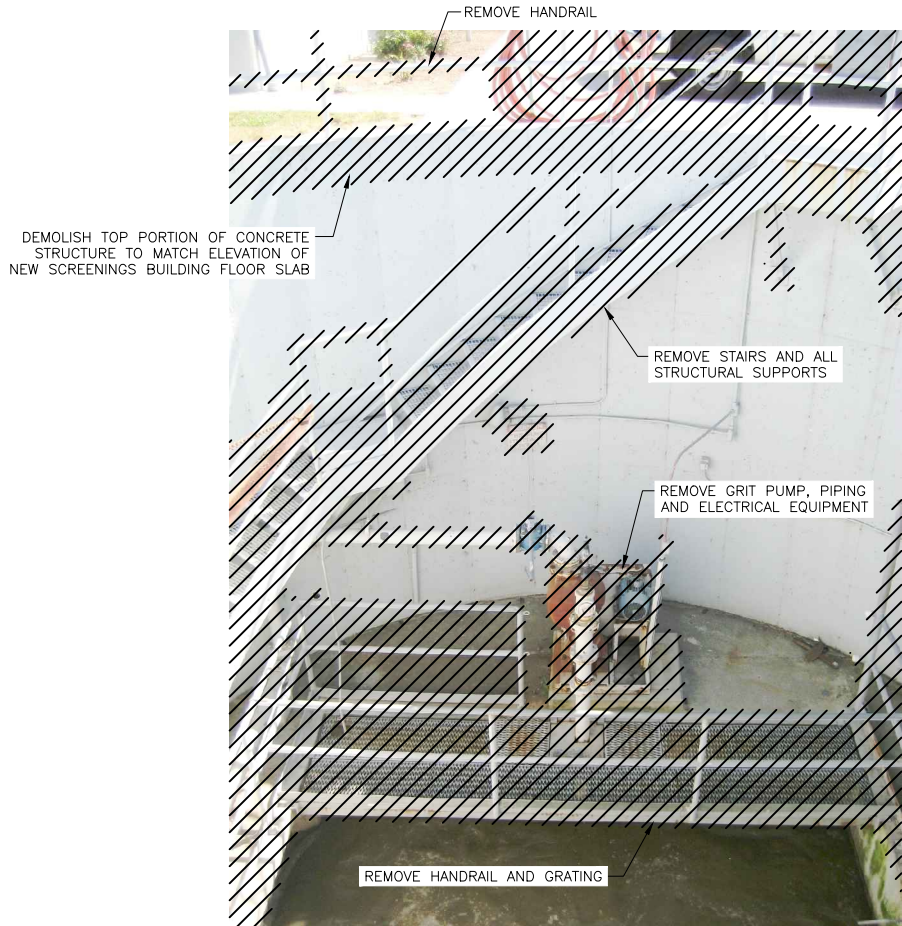
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0 1" 2"

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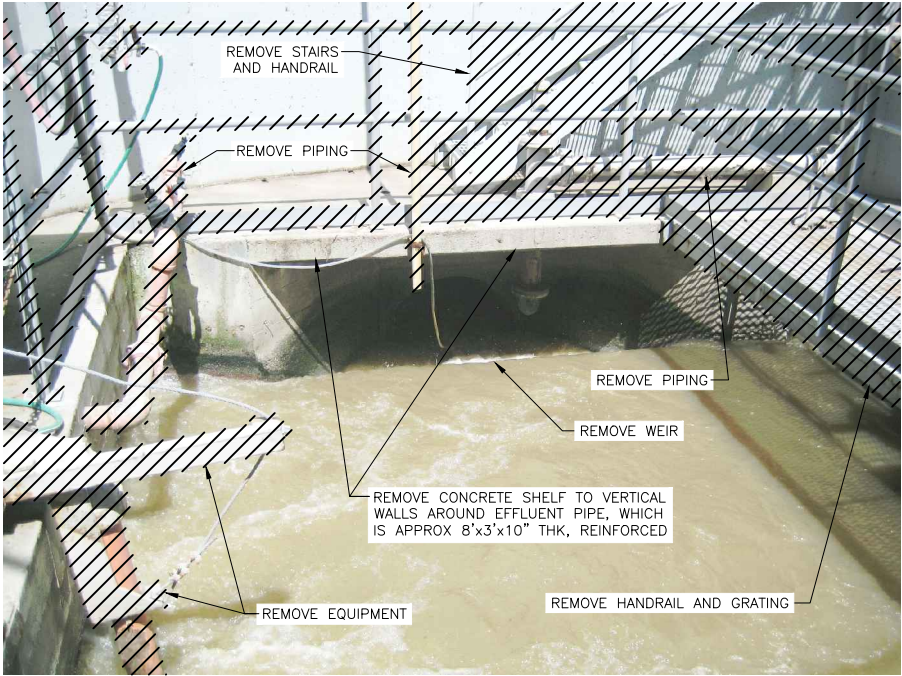


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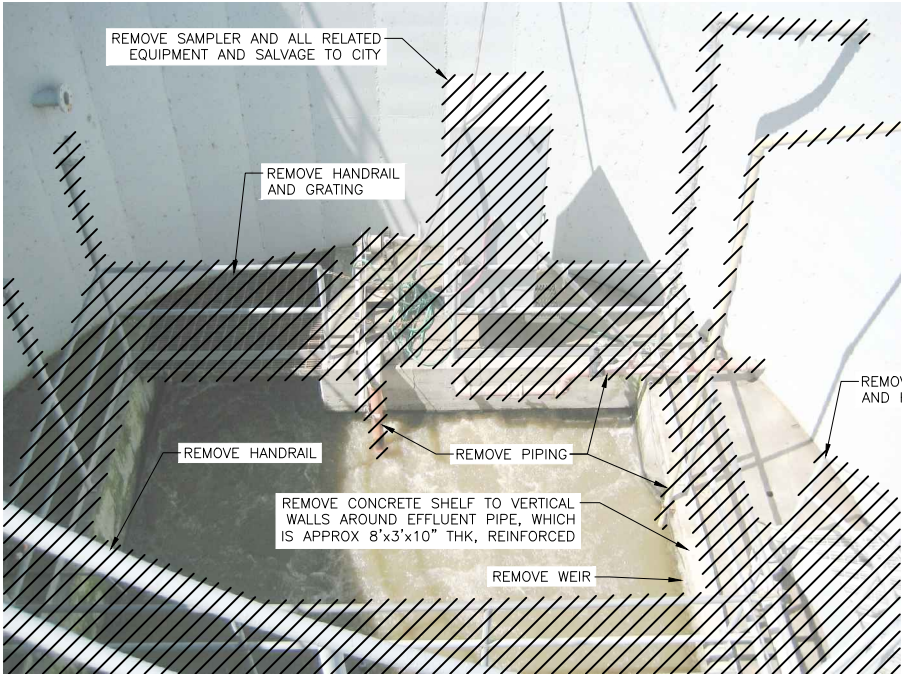
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120X-01



DEMOLITION PHOTO  
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5  
120X-01



DEMOLITION PHOTO  
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6  
120X-01



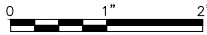
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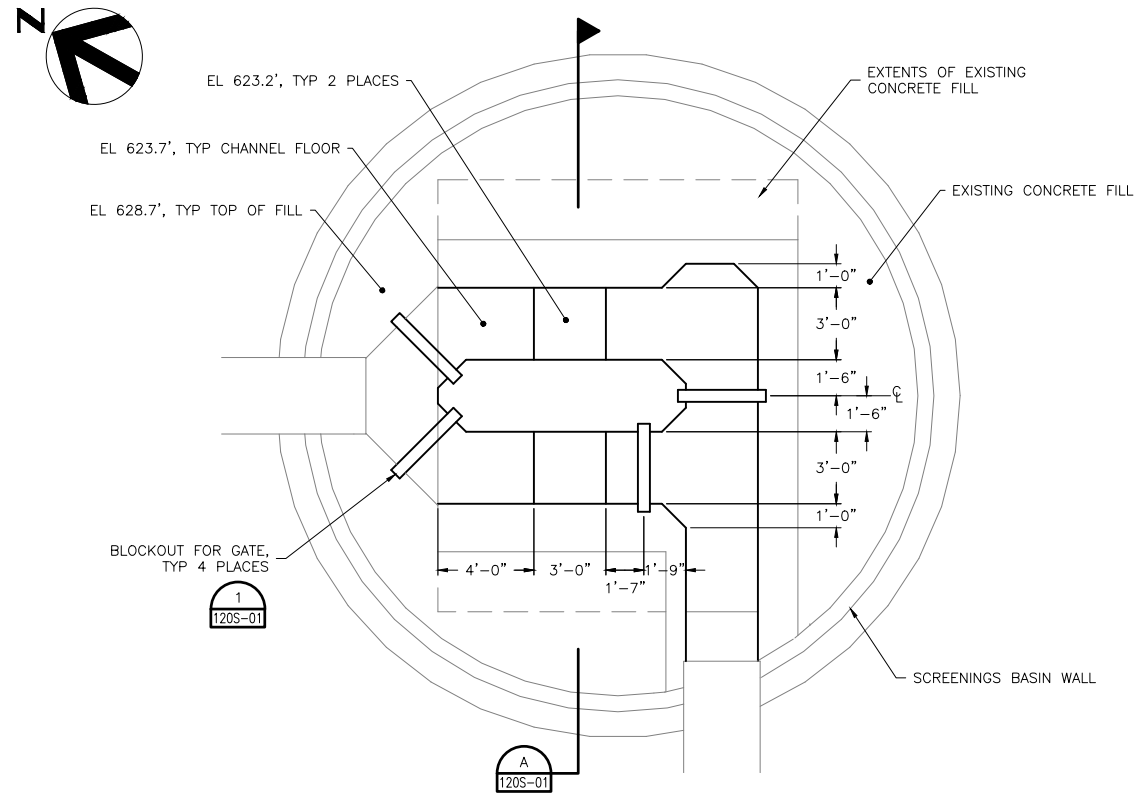
PRE-AERATION STRUCTURE  
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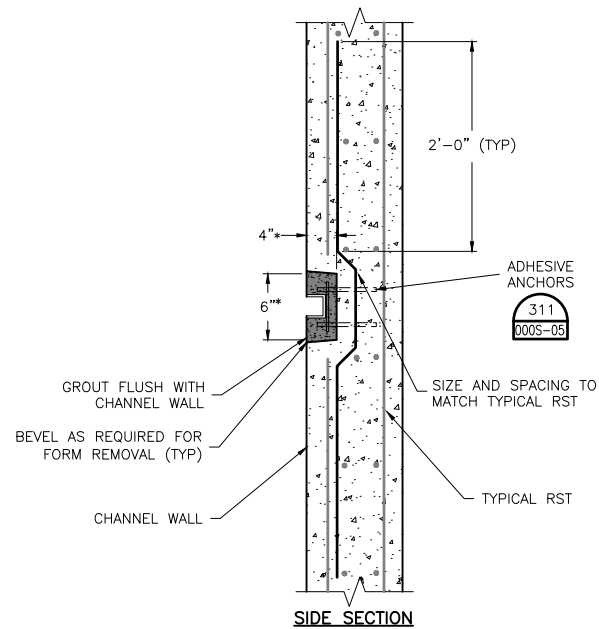
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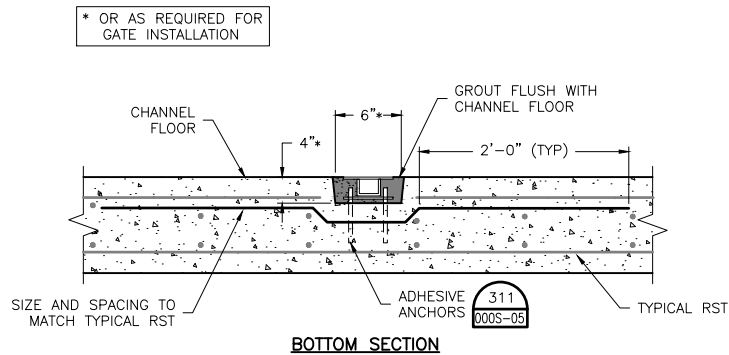


**BASIN CHANNEL PLAN**

1/4" = 1'-0"



**SIDE SECTION**



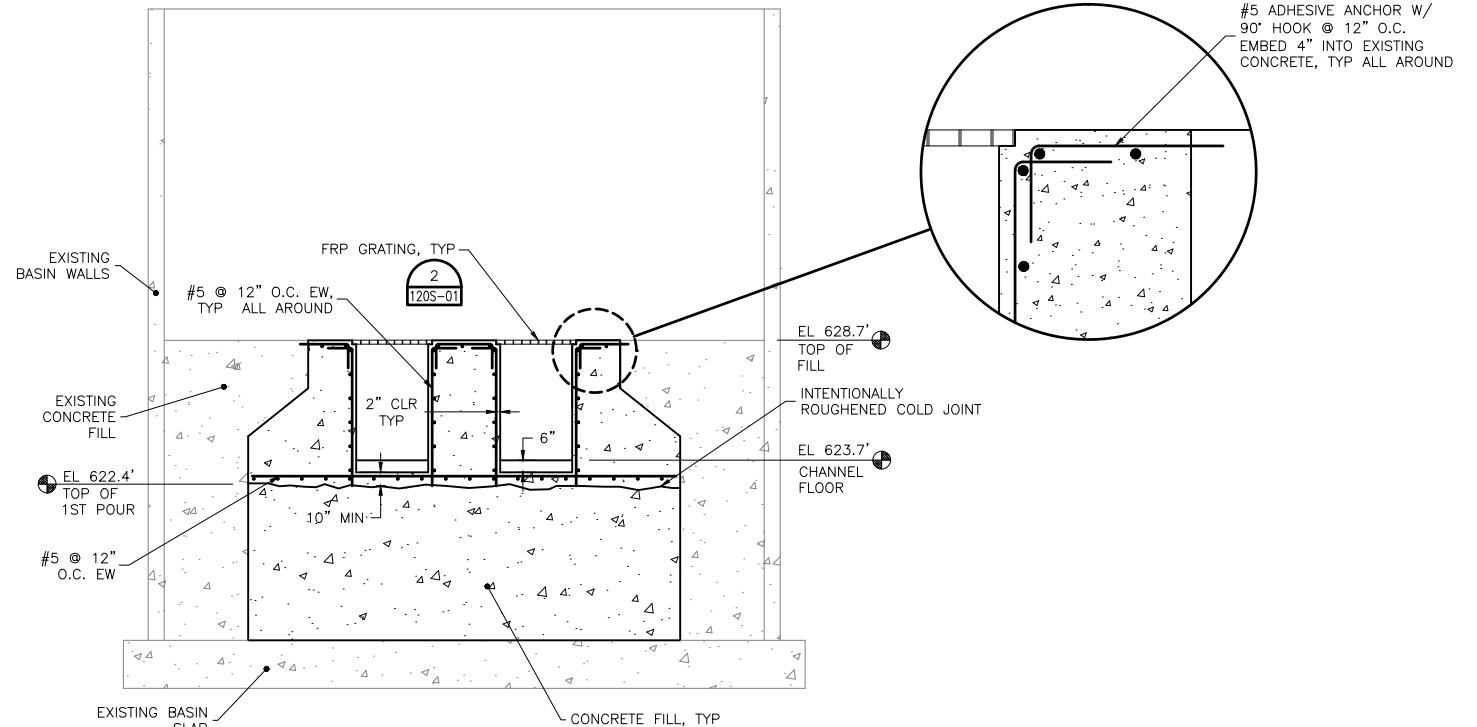
**BOTTOM SECTION**

NOTE: GATE BLOCKOUTS INTO EXISTING FILL SIMILAR. CUT BLOCKOUT INTO EXISTING CONCRETE AND USE CONCRETE ANCHORS AS SPECIFIED.

**GATE BLOCKOUT DETAILS**

1" = 1'-0"

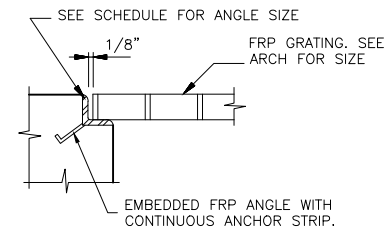
1 120S-01



**SECTION**

1/4" = 1'-0"

A 120S-01



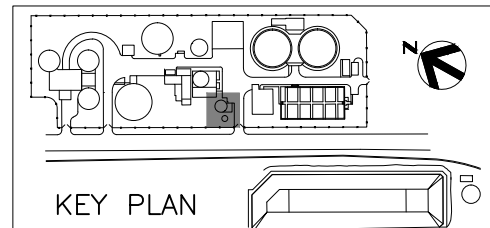
GRATING SUPPORT ANGLE SCHEDULE	
BEARING BAR DEPTH x THICKNESS	SEAT ANGLE SIZE
1 1/4" x 3/16"	L 1 1/2" x 1 1/2" x 1/4"
1 1/2" x 3/16"	* L 2" x 2" x 1/4"
1 3/4" x 3/16"	L 2" x 2" x 1/4"
2" x 3/16"	* L 2 1/2" x 2 1/2" x 1/4"
2 1/4" x 3/16"	L 2 1/2" x 2" x 1/4" (LLV)
2 1/2" x 3/16"	* L 3" x 2" x 1/4" (LLV)
4 1/2" x 3/8"	* L 5" x 3 1/2" x 3/8"

\* CUT VERTICAL LEGS TO MATCH TOP OF BEARING BARS

**GRATING SEAT ANGLE DETAIL**

NOT TO SCALE

2 VARIES



**KEY PLAN**



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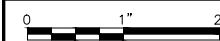
ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	K. KORNIHER
DRAWN	J. CONNER
CHECKED	M. HIJAZI
PROJECT NUMBER	171097

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**SCREENINGS BUILDING  
STRUCTURAL  
SCREENINGS BASIN MODIFICATIONS**

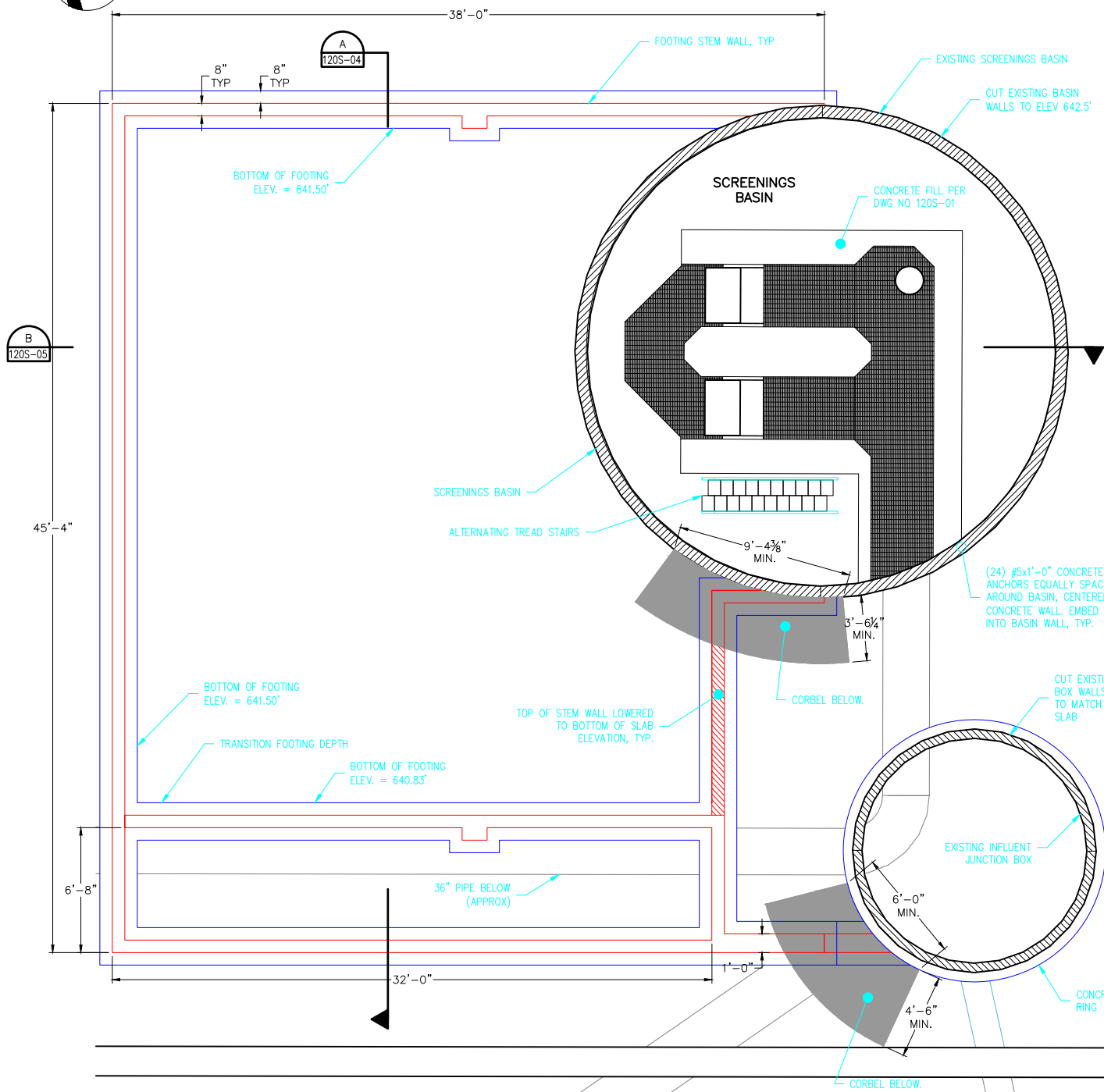


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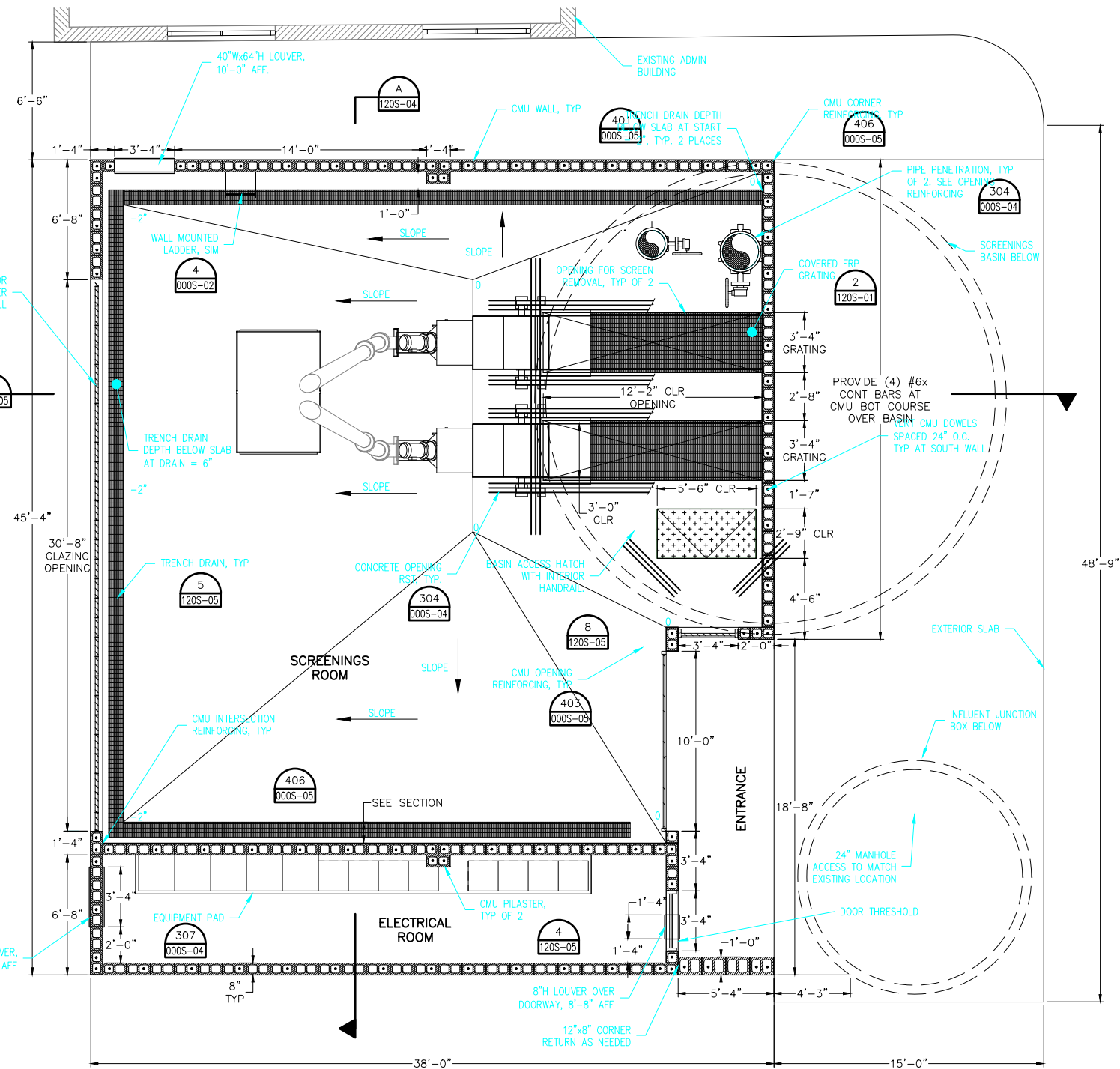
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**120S-01**



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FOUNDATION PLAN  
1/4" = 1'-0"



SCREENINGS BUILDING FLOOR PLAN  
1/4" = 1'-0"



HDR Engineering, Inc.

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**City of  
Wenatchee**  
WASTE WATER TREATMENT  
PLANT IMPROVEMENTS

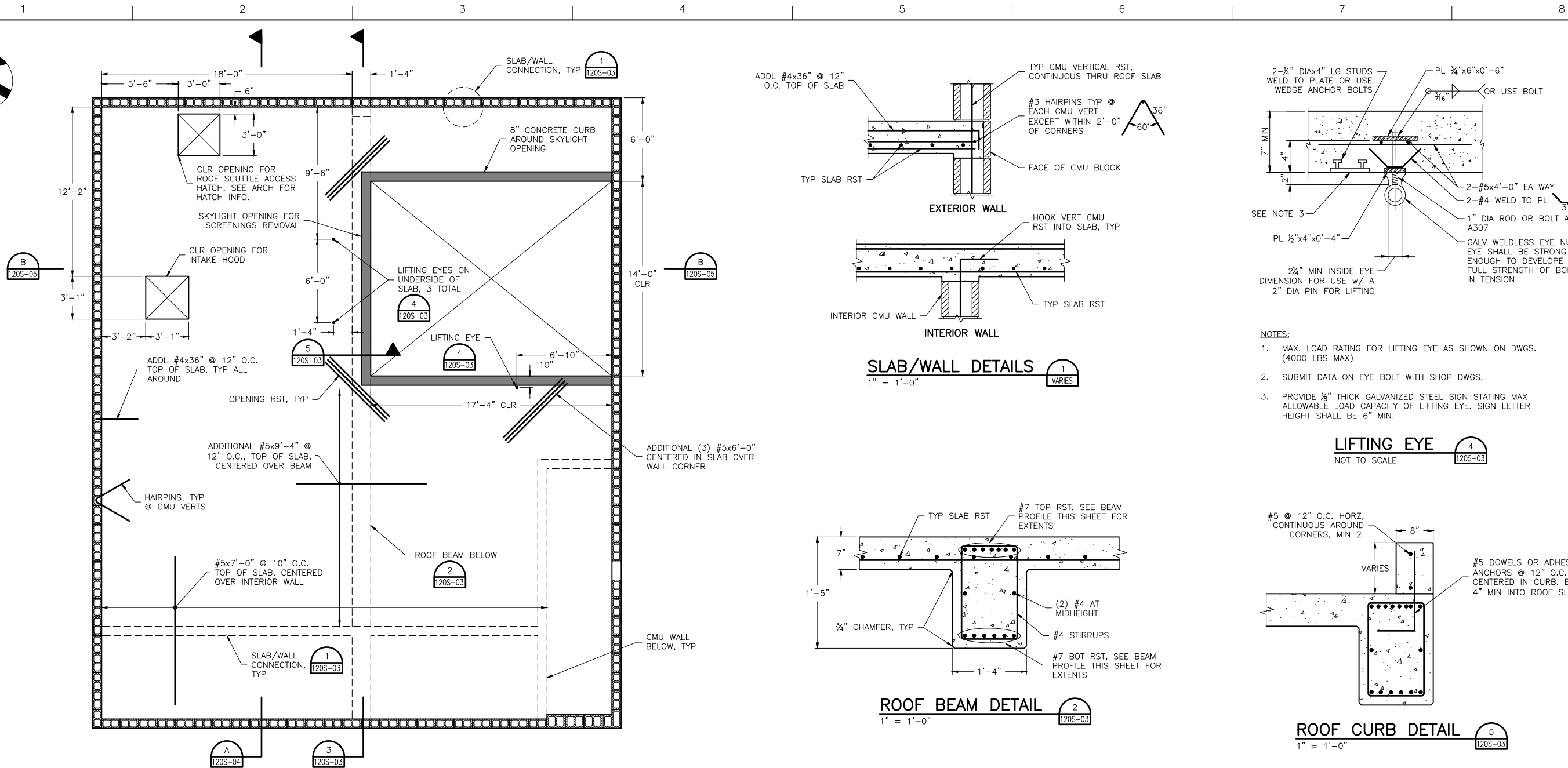
SCREENINGS BUILDING  
STRUCTURAL  
FOUNDATION AND FLOOR PLAN



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SCALE AS SHOWN

SHEET  
**120S-02**

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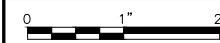
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**SCREENINGS BUILDING  
STRUCTURAL  
ROOF PLAN AND DETAILS**



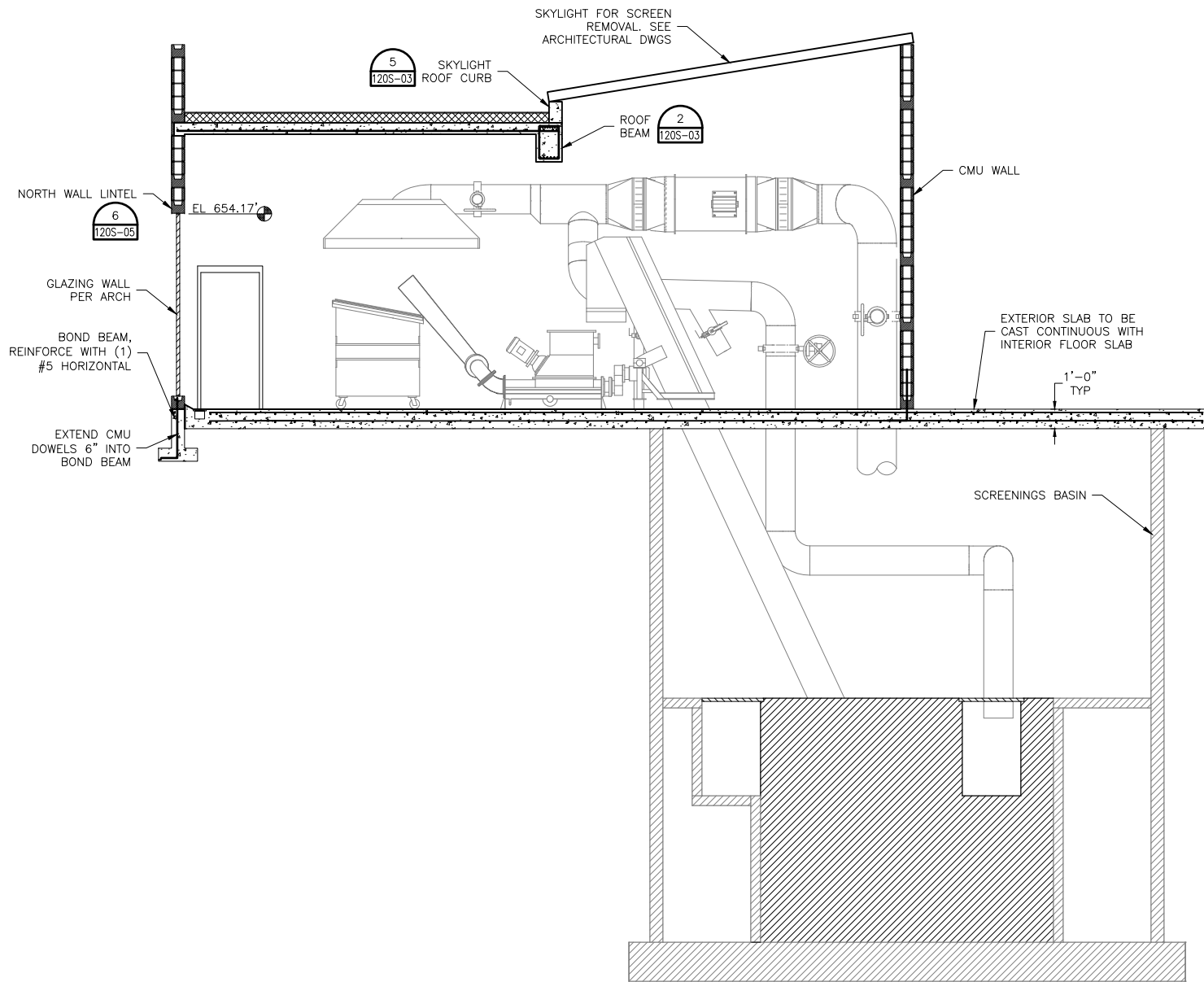
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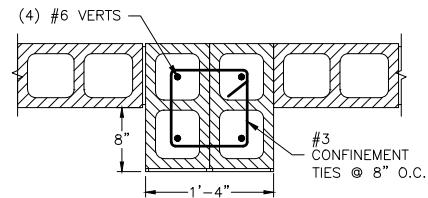




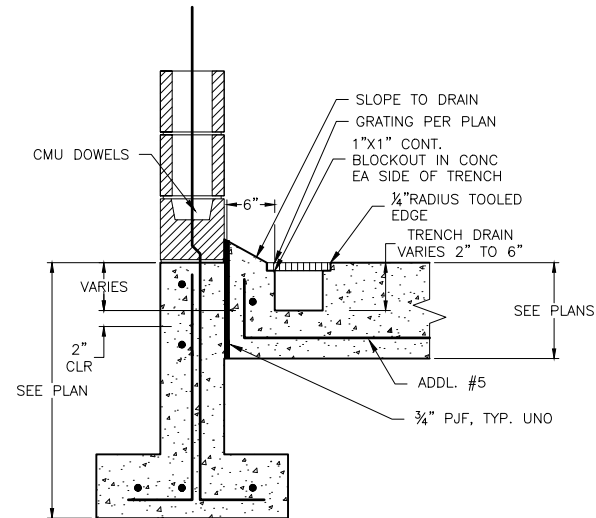
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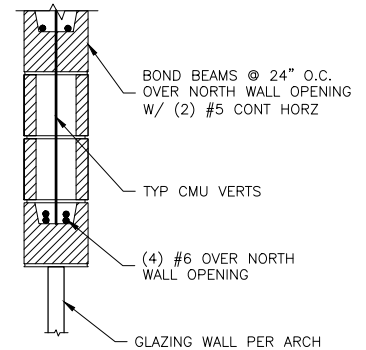
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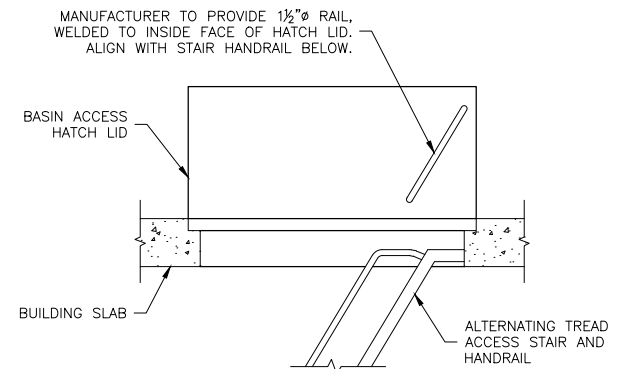
CMU PILASTER DETAIL  
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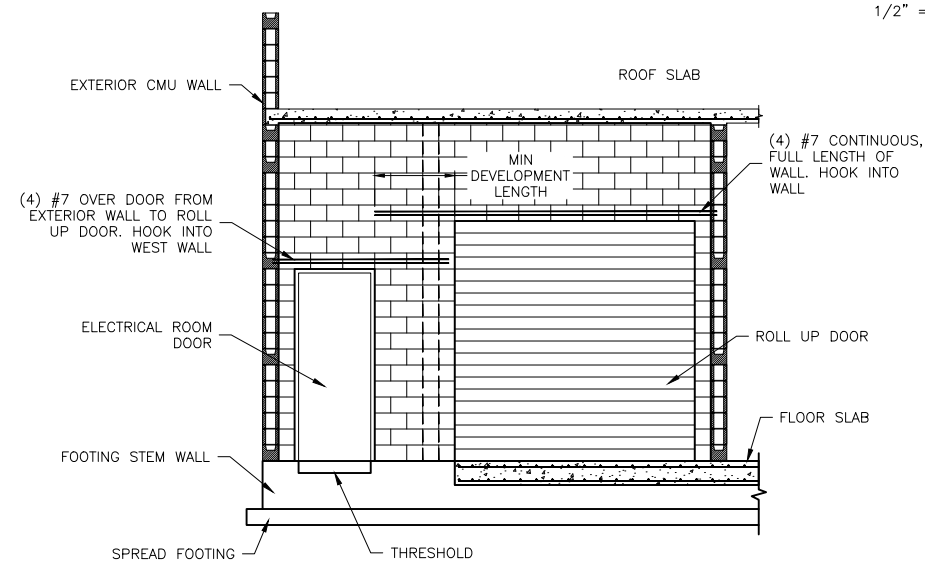
TRENCH DRAIN DETAIL  
1" = 1'-0"



NORTH WALL LINTEL  
1" = 1'-0"



HATCH RAIL DETAIL  
1/2" = 1'-0"



SECTION C  
1/4" = 1'-0"



HDR Engineering, Inc.

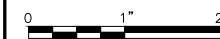
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	K. KORNIHER
DRAWN	J. CONNER
CHECKED	M. HIJAZI
PROJECT NUMBER	171097

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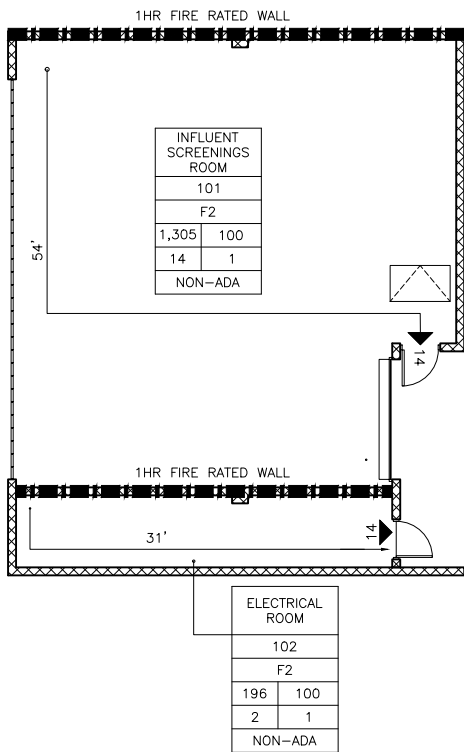
SCREENINGS BUILDING  
STRUCTURAL  
SECTIONS AND DETAILS



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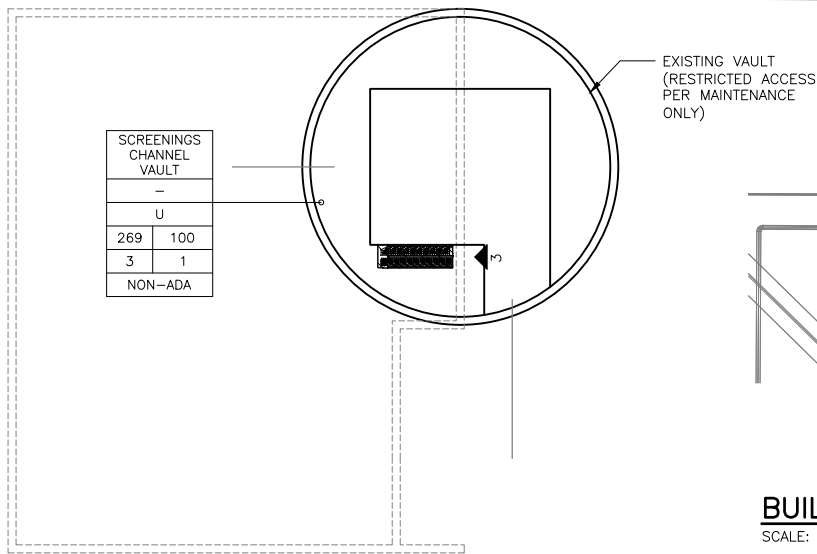
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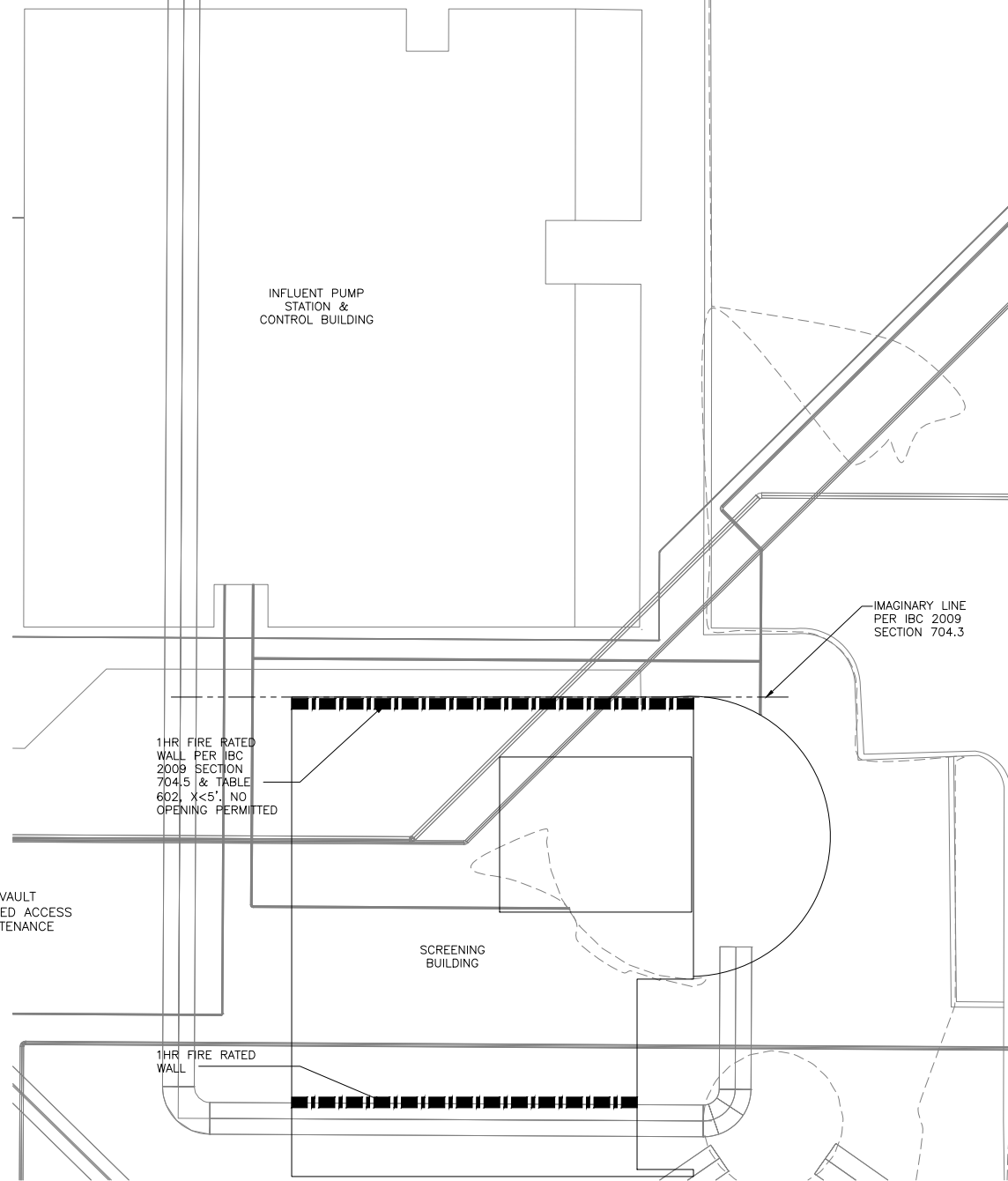
GROUND FLOOR CODE REVIEW PLAN

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LOWER LEVEL CODE REVIEW PLAN

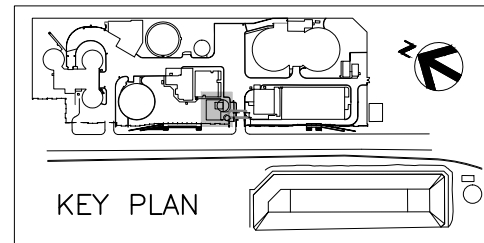
SCALE: 1/8"=1'-0"



BUILDING ADJACENCY CODE REVIEW PLAN

SCALE: 1/8"=1'-0"

KEY PLAN



CURRENT CODE DATA:

APPLICABLE CODES & STANDARDS:

2009 INTERNATIONAL BUILDING CODE  
WASHINGTON STATE AMENDMENTS  
2009 INTERNATIONAL FIRE CODE  
2008 NATIONAL ELECTRICAL CODE  
2009 WASHINGTON STATE ENERGY CODE  
2009 UNIFORM PLUMBING CODE  
2009 INTERNATIONAL MECHANICAL CODE  
ICC/ANSI A117.1 -2003  
OSHA

OCCUPANCY: 2009 IBC CHAPTER 3

SCREENINGS BUILDING GROUND FLOOR:  
FACTORY INDUSTRIAL F-2 LOW HAZARD OCCUPANCY  
SCREENINGS CHANNEL VAULT:  
U: UTILITY & MISCELLANEOUS

TYPE OF CONSTRUCTION: TABLE 601

NO OCCUPANCY SEPARATION REQ'D: TABLE 508.3.3

TYPE IIB  
FIRE RESISTANCE PARTITIONS

STRUCTURAL FRAME: 0  
BEARING WALLS: 0  
NON BEARING WALLS & PARTITION: 0  
FLOOR CONSTRUCTION: 0  
ROOF CONSTRUCTION: 0

BUILDING HEIGHT & AREA: TABLE 503

ALLOWABLE:  
F-2 OCCUPANCY, TYPE IIB:  
3 STORY,  
23,000 SF PER STORY

PROVIDED:  
1 STORY,  
GROUND FL: 1501 SF  
LOWER LEVEL: 254 SF  
1755 SF

SPRINKLERS:

NON SPRINKERED

EXIT ACCESS TRAVEL DISTANCE: TABLE 1016.1

F-2 OCCUPANCY W/O SPRINKLER:

REQ'D: 300' MAX  
PROVIDED: 59' MAX

NUMBER OF PLUMBING FIXTURES: 2010 IPC

REQ'D: NONE  
PROVIDED: NONE

LEGEND:

1HR FIRE SEPARATION

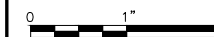
LOCKER ROOM	ROOM NAME
02	ROOM NO.
F2	OCCUPANCY
1536 100	LOAD FACTOR (2007 CBC TABLE 10-A)
16 1	NO. OF EXITS
NON-ADA	ADA/NON-ADA
EXIT OUT OF ROOM	5 CUMULATIVE EXIT OCCUPANCY
EXIT OUT OF BLDG	26 CUMULATIVE EXIT OCCUPANCY
* NO. OF EXITS BASED ON ELECTRICAL CODE REQUIREMENTS.	



ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	D. HOGAN
DRAWN	J. ZHAO
CHECKED	
PROJECT NUMBER	171097

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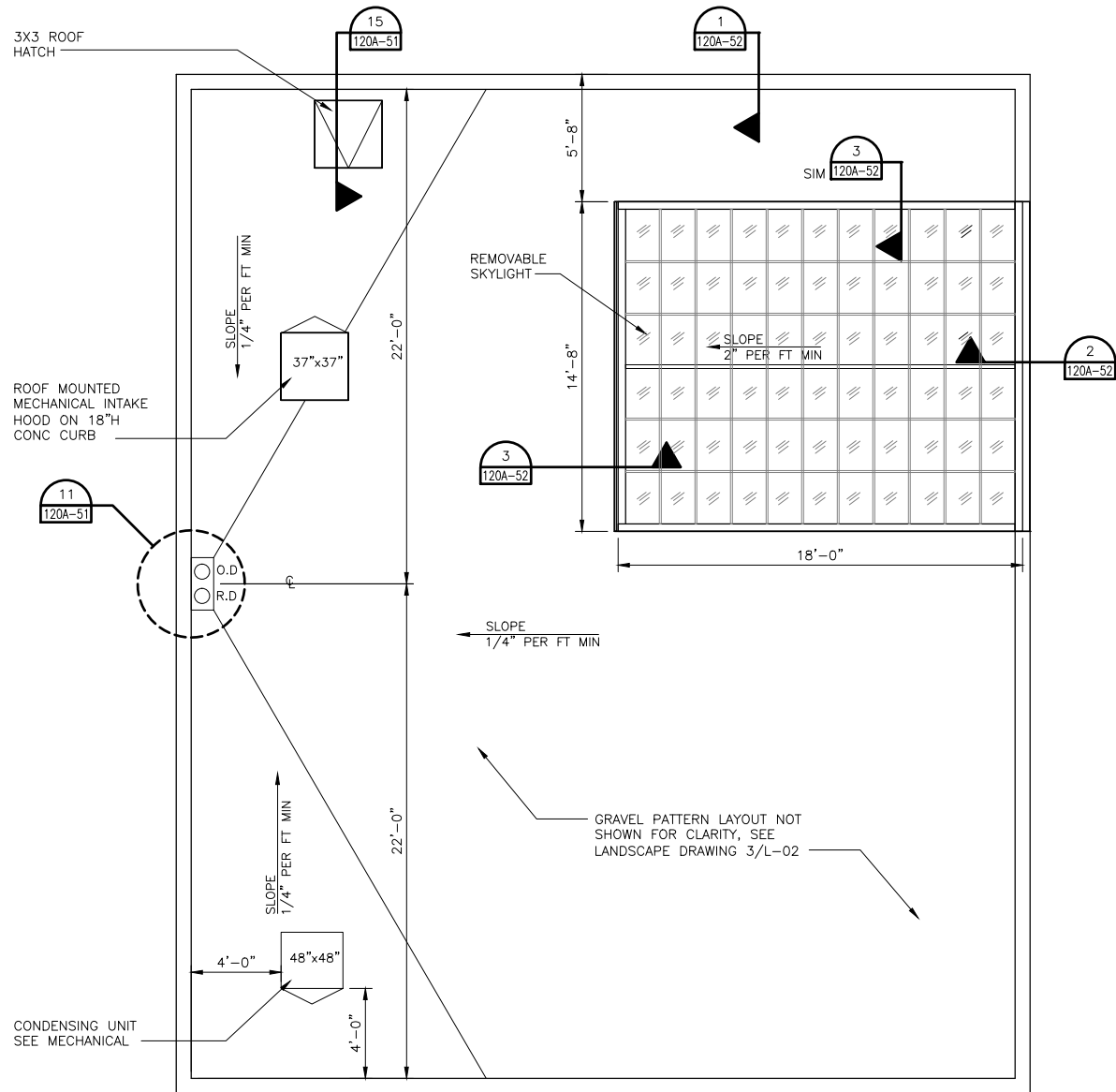


GENERAL  
CODE REVIEW PLANS

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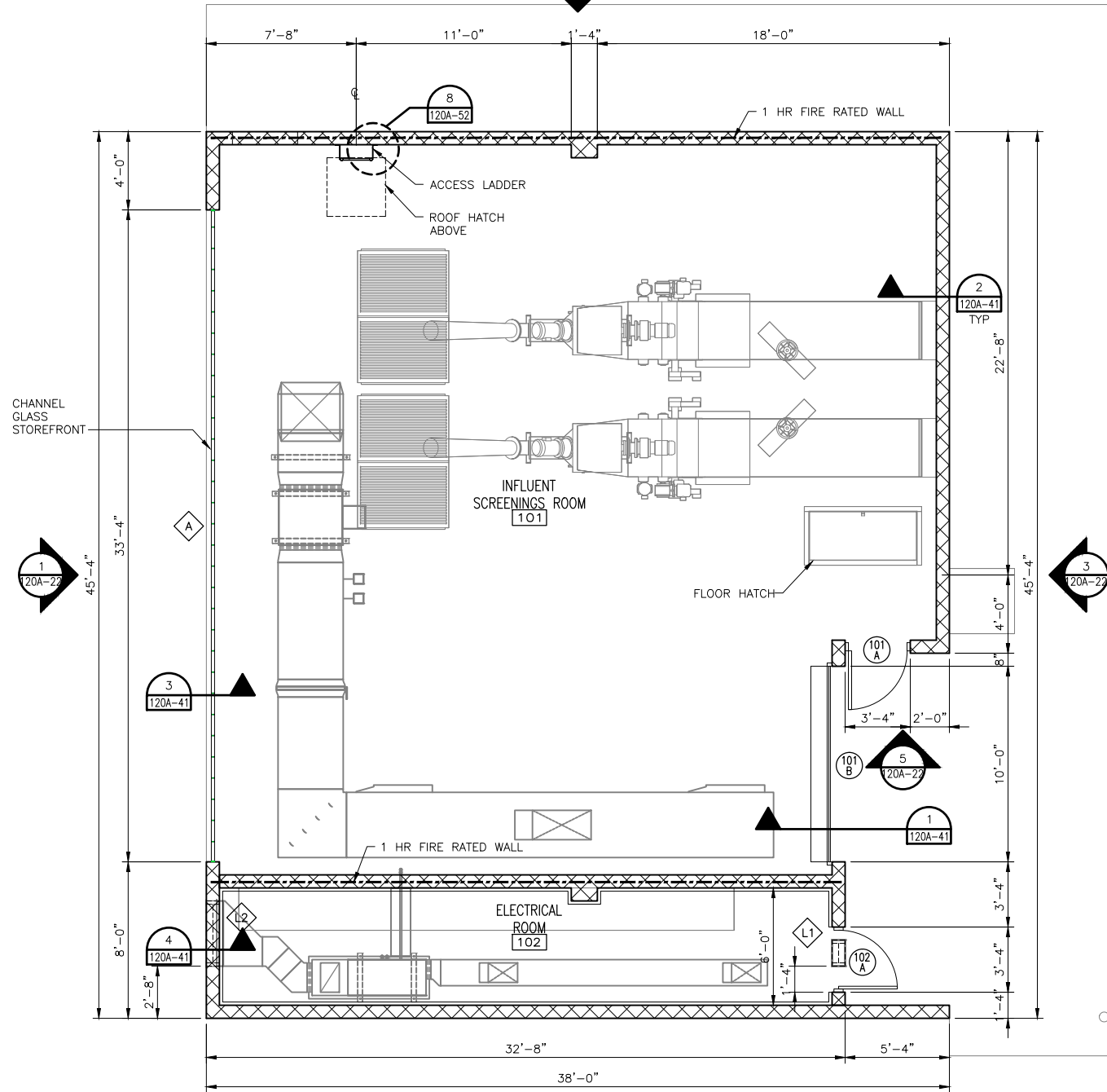
SHEET	120A-00
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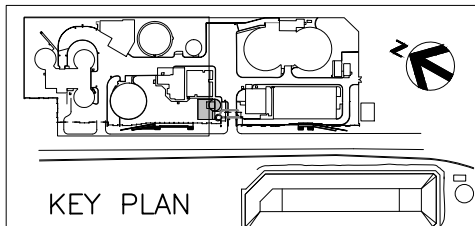
ROOF PLAN

SCALE: 1/4" = 1'-0"



FLOOR PLAN

SCALE: 1/4" = 1'-0"



KEY PLAN



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SCREENINGS BUILDING  
FLOOR PLAN & ROOF PLAN



FILENAME	120A-01.dwg
SCALE	1/4"=1'-0"

SHEET	120A-01
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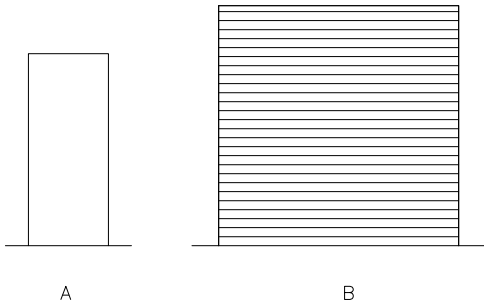
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LOUVER SCHEDULE								
MARK	SIZE	TYPE	FRAME		HEAD	DETAILS		REMARKS
			MAT'L	FINISH		JAMB	SILL	
L1	1'-4" X 0'-8"	A	ALUM	PRE-FIN	14/120A-51	13/120A-51	14/120A-51	
L2	3'-4" X 1'-4"	A	ALUM	PRE-FIN	14/120A-51	13/120A-51	14/120A-51	

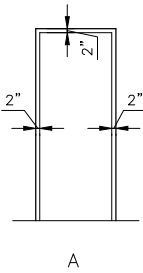
ROOM FINISH SCHEDULE												
MARK	ROOM NAME	FLOOR		BASE	EXT WALLS		INT WALLS		CEILING			REMARKS
		MAT'L	FINISH		MAT'L	FINISH	MAT'L	FINISH	MAT'L	FINISH	HEIGHT	
101	INFLUENT SCREENINGS ROOM	CONC	SEALER	NONE	CMU	NONE	CMU	NONE	EXP. STRUCT.	NONE	VARIES	
102	ELECTRICAL ROOM	CONC	SEALER	NONE	CMU	NONE	CMU/GWB	PAINT	EXP. STRUCT.	NONE	VARIES	

DOOR SCHEDULE													
MARK	SIZE	DOOR			FRAME			DETAILS			HDWR.	LABEL	REMARKS
		TYPE	MAT'L	FINISH	TYPE	MAT'L	FINISH	HEAD	JAMB	THRESH.			
D-101A	3'-0"x7'-10"	A	HM	PAINT	A	HM	PAINT	2/120A-51	1/120A-51	3/120A-51	HW-2	1 HR	
D-101B	10'-0"x10'-0"	B	STEEL	PAINT	-	STEEL	-	8/120A-51	4/120A-51	-	-		MOTOR OPERATED
D-102A	3'-0"x7'-10"	A	HM	PAINT	A	HM	PAINT	6/120A-51	5/120A-51	3/120A-51	HW-2		

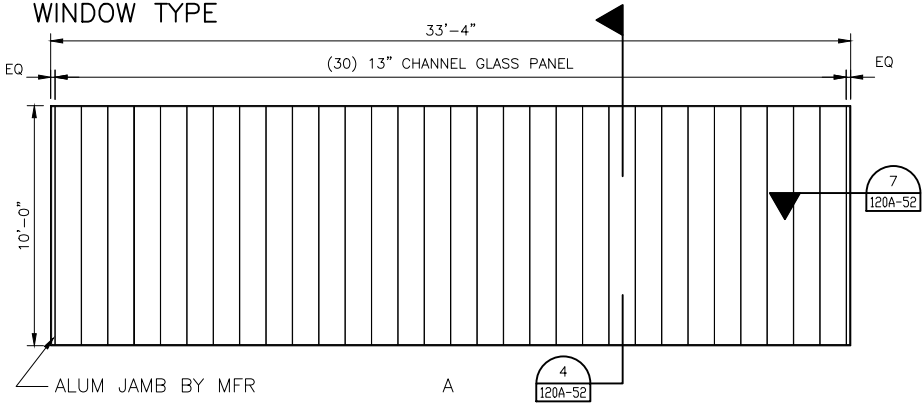
DOOR TYPES



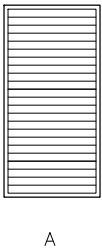
FRAME TYPES



WINDOW TYPE



LOUVER TYPES



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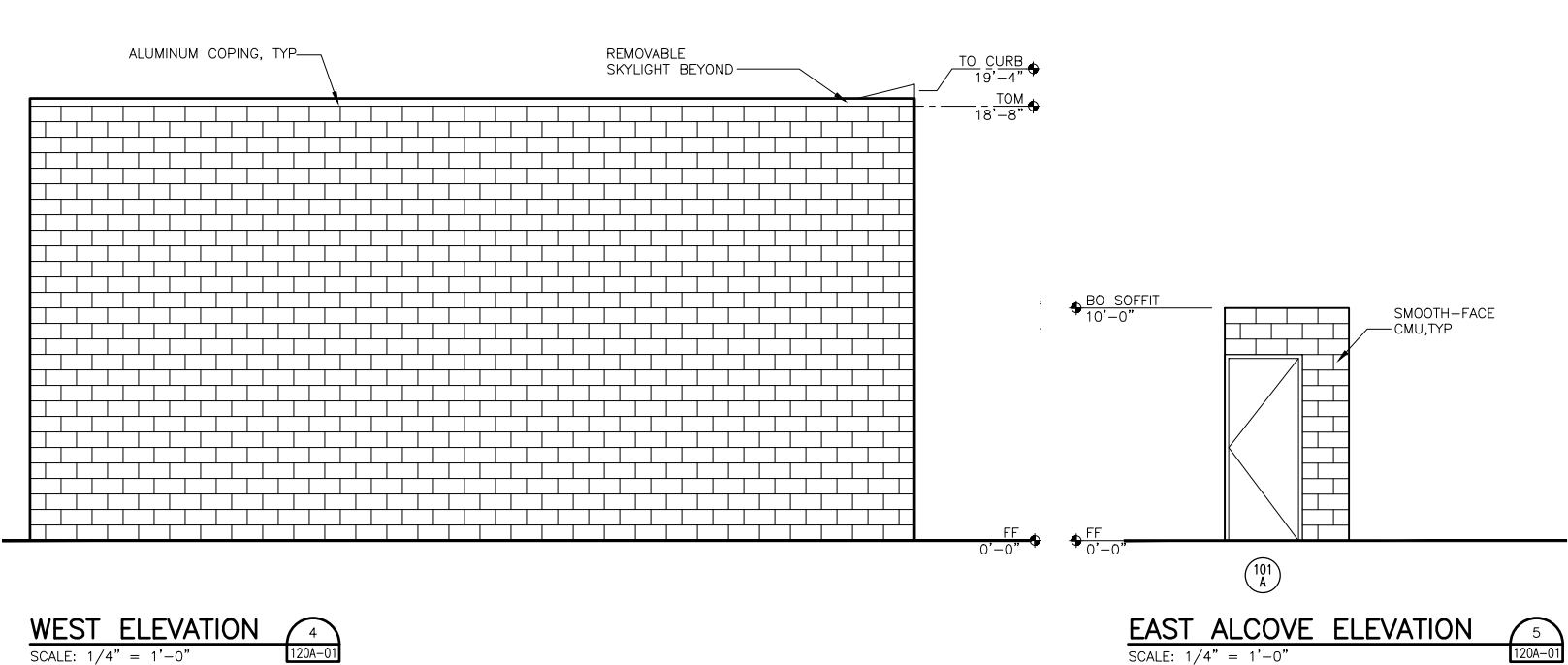
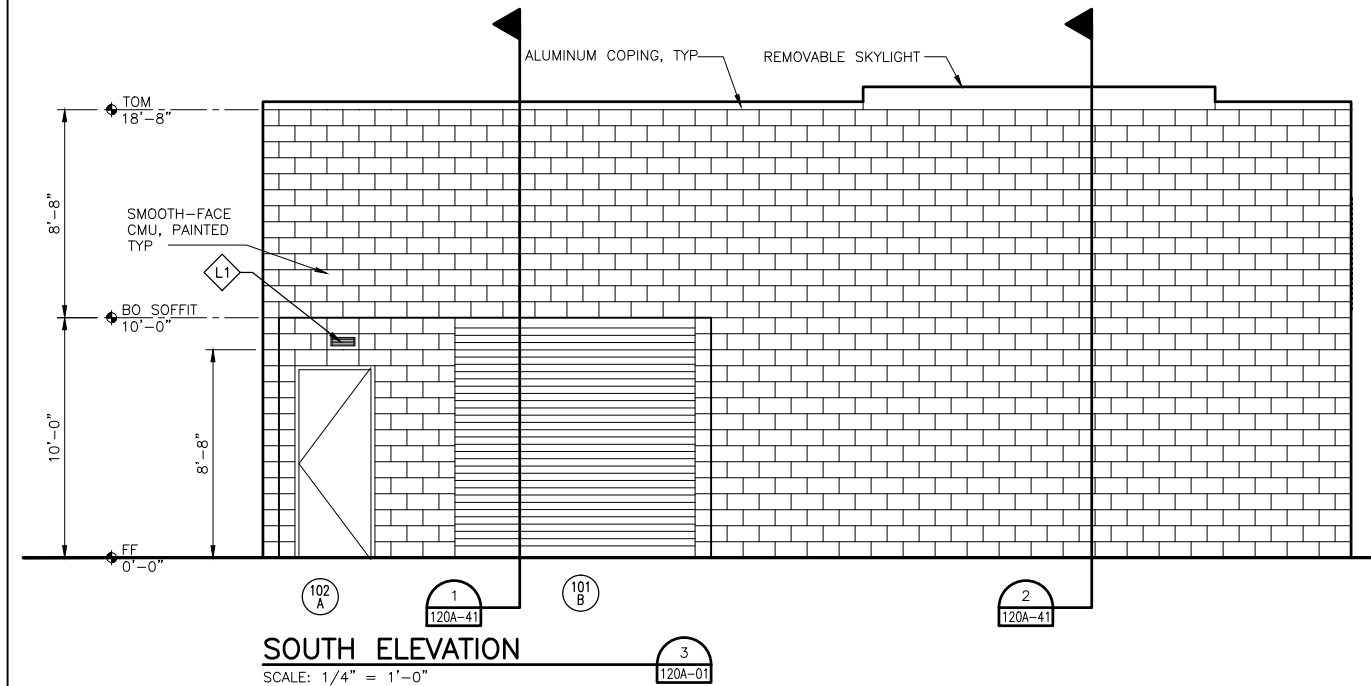
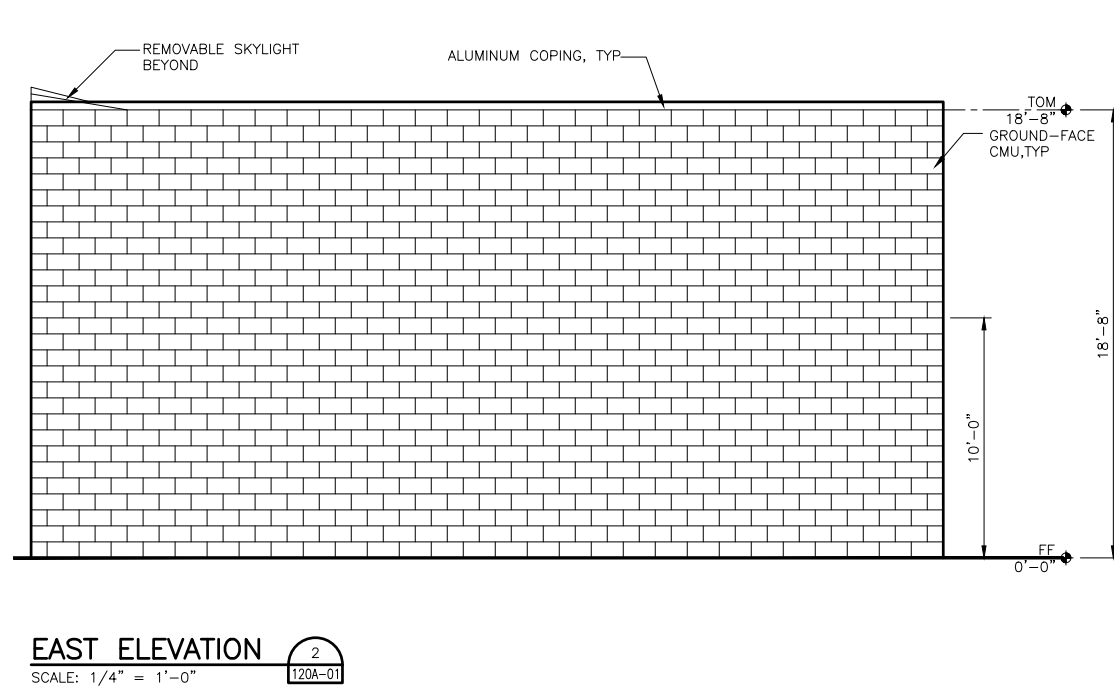
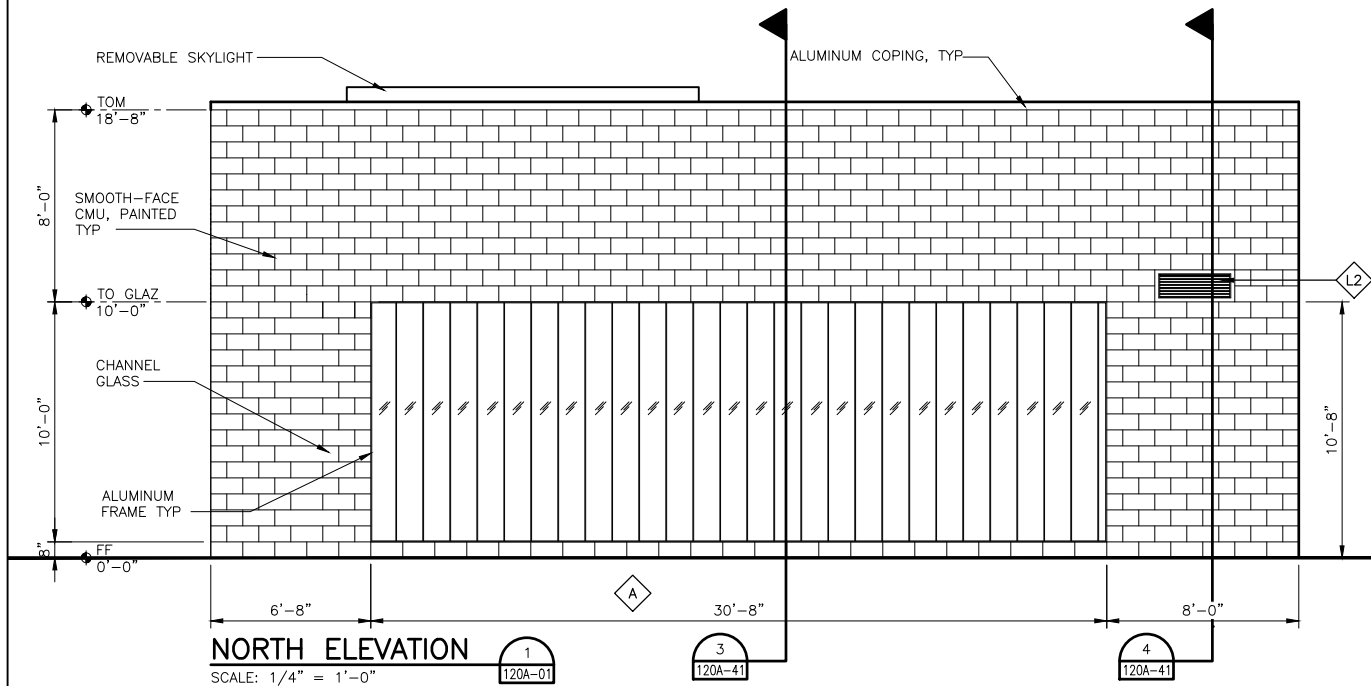
SCREENINGS BUILDING  
DOOR, LOUVER AND WINDOW  
TYPES & SCHEDULES



FILENAME	120A-21.dwg
SCALE	1/4" = 1'-0"

SHEET
120A-21

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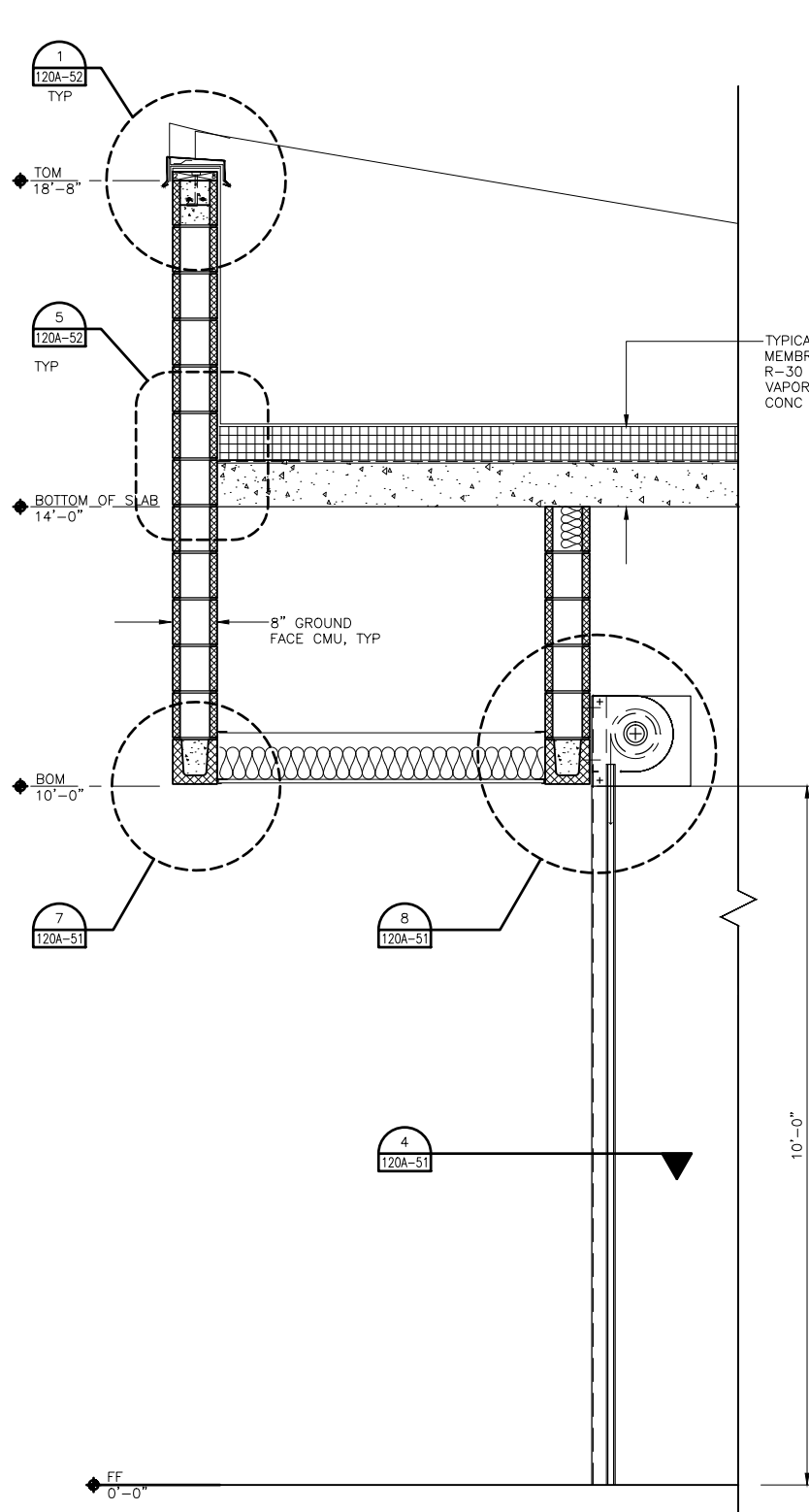
### SCREENINGS BUILDING BUILDING ELEVATIONS



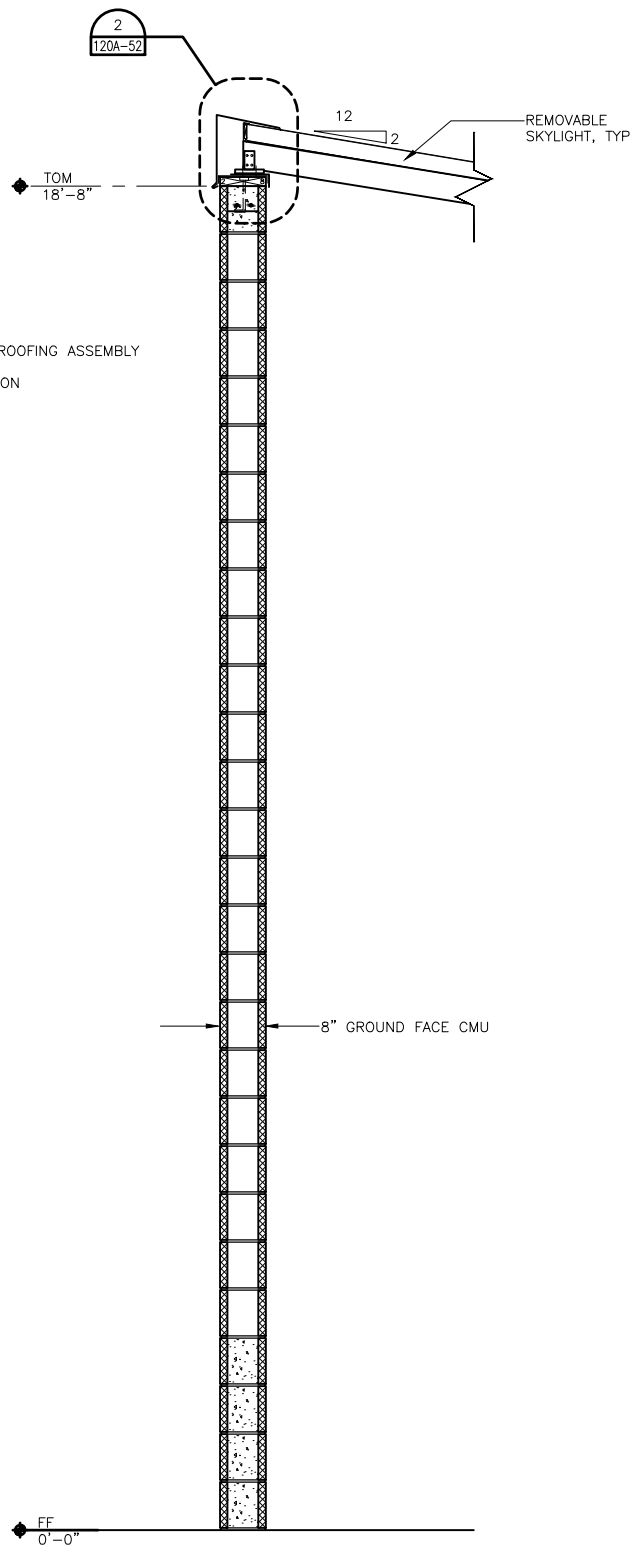
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SCALE	1/4" = 1'-0"

SHEET	120A-22
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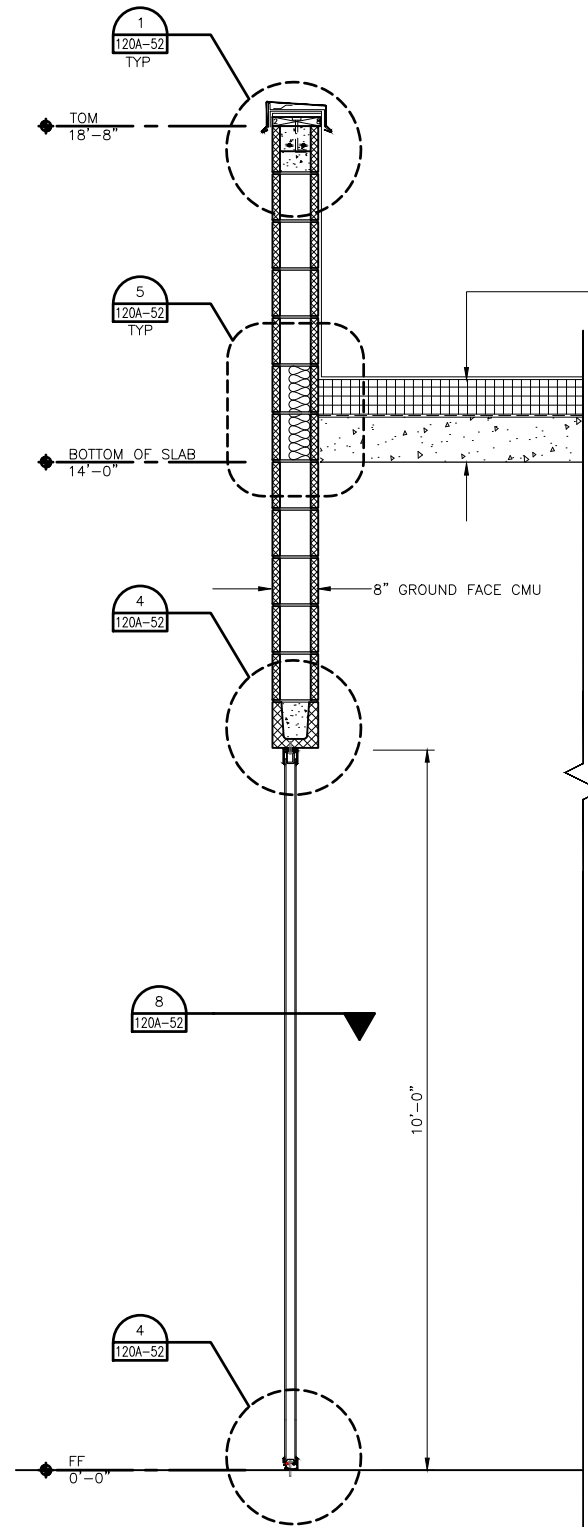
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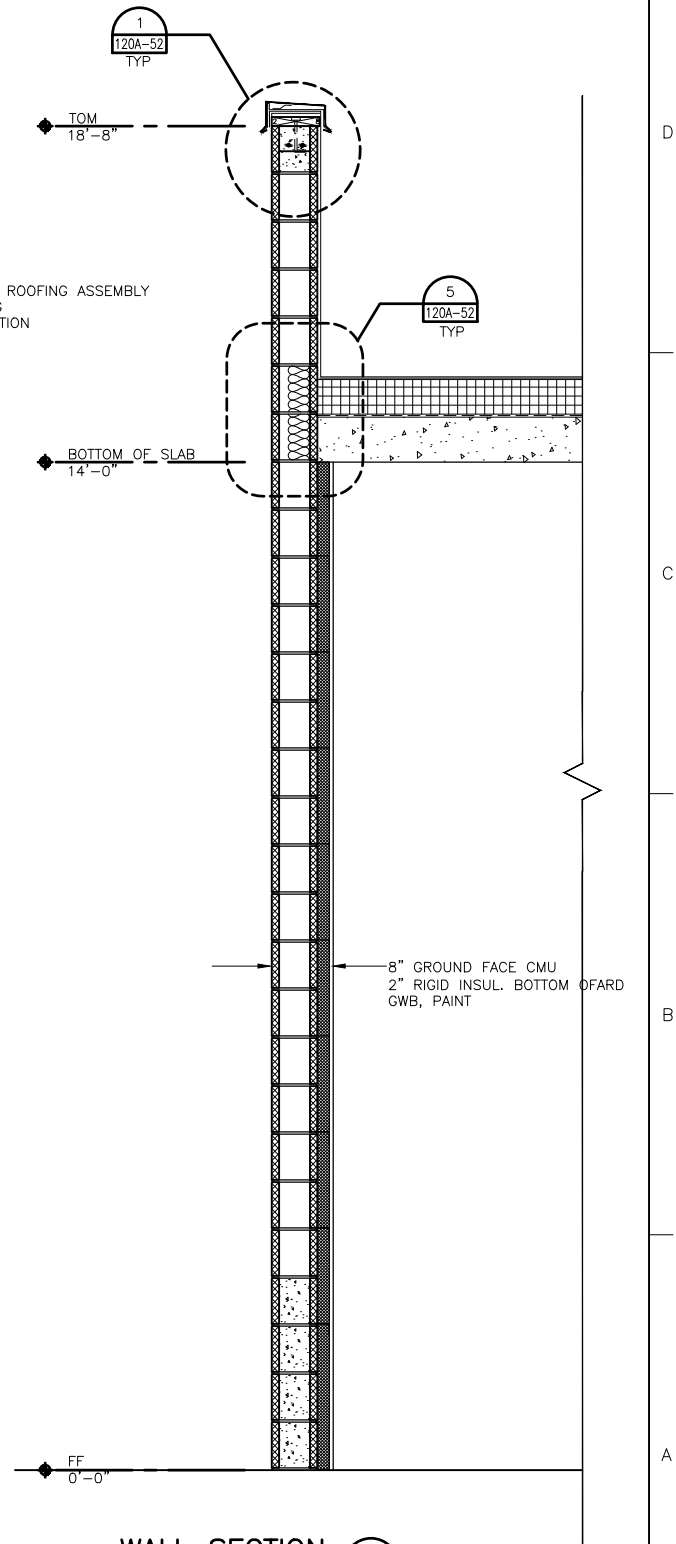
WALL SECTION 1  
SCALE: 3/4" = 1'-0"



WALL SECTION 2  
SCALE: 3/4" = 1'-0"



WALL SECTION 3  
SCALE: 3/4" = 1'-0"



WALL SECTION 4  
SCALE: 3/4" = 1'-0"



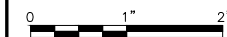
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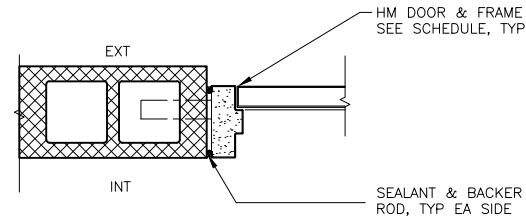
SCREENINGS BUILDING  
WALL SECTIONS



FILENAME	120A-41.dwg
SCALE	3/4"=1'-0"

SHEET
120A-41

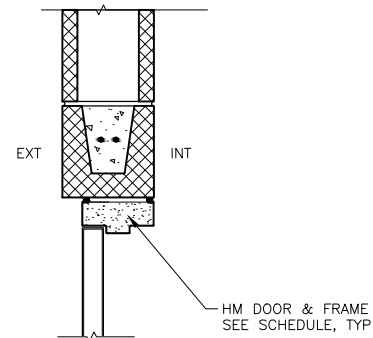
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DOOR JAMB DETAIL

SCALE: 1-1/2"=1'-0"

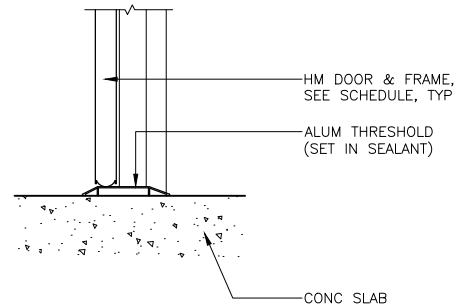
1  
120A-21



DOOR HEAD DETAIL

SCALE: 1-1/2"=1'-0"

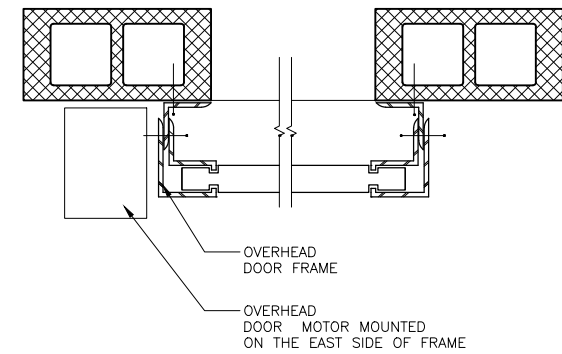
2  
120A-21



THRESHOLD DETAIL

SCALE: 1-1/2"=1'-0"

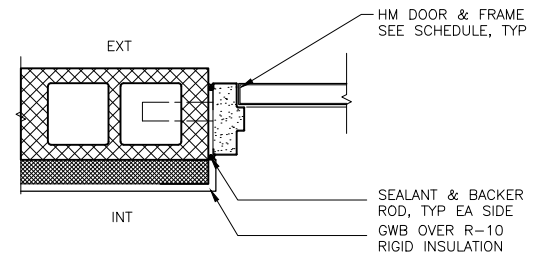
3  
120A-21



DOOR JAMB DETAIL

SCALE: 1-1/2"=1'-0"

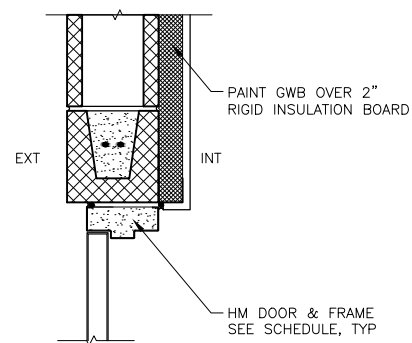
4  
120A-21



DOOR JAMB DETAIL

SCALE: 1-1/2"=1'-0"

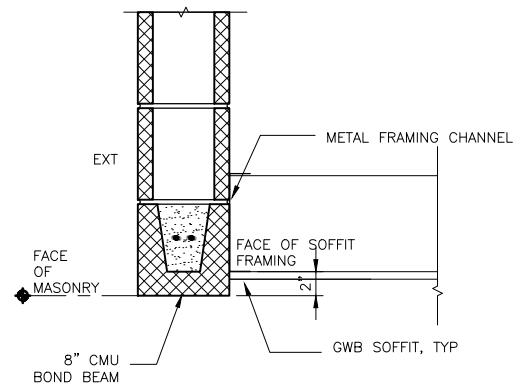
5  
120A-21



DOOR HEAD DETAIL

SCALE: 1-1/2"=1'-0"

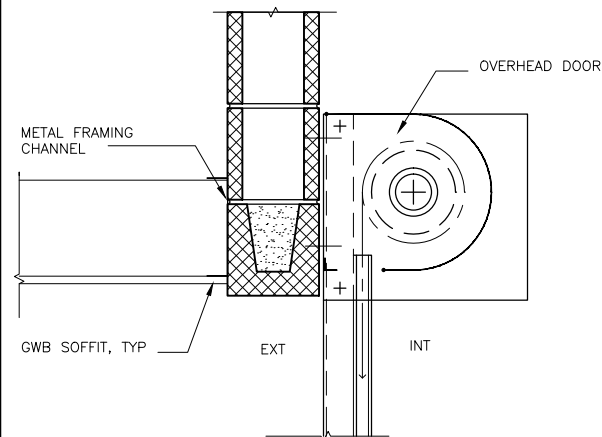
6  
120A-21



CEILING DETAIL

SCALE: 1-1/2"=1'-0"

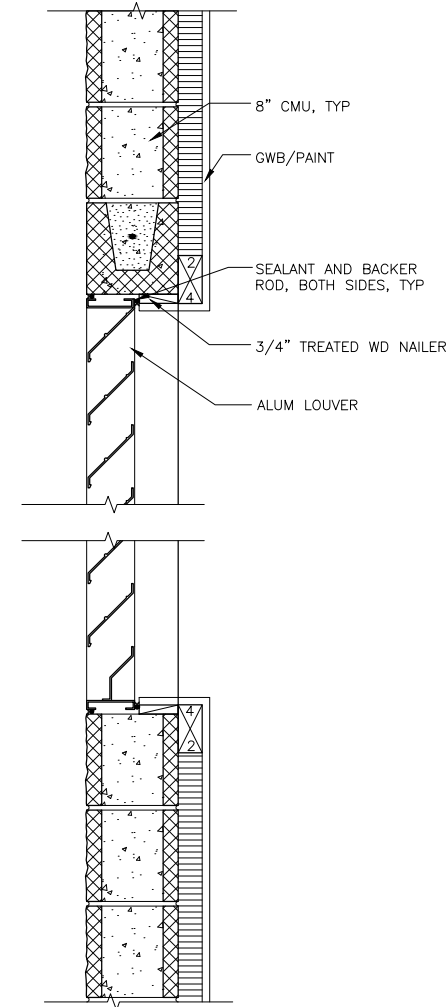
7  
120A-31



OVERHEAD DOOR HEAD DETAIL

SCALE: 1-1/2"=1'-0"

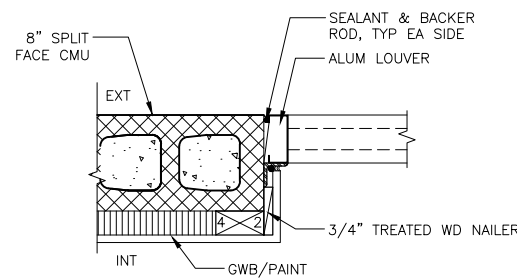
8  
120A-31



TYP LOUVER HEAD/SILL

SCALE: 1-1/2"=1'-0"

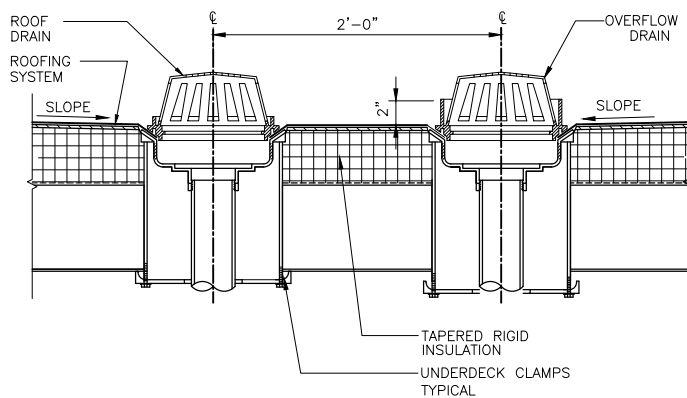
14  
A120-21



TYP EXT LOUVER JAMB

SCALE: 1-1/2"=1'-0"

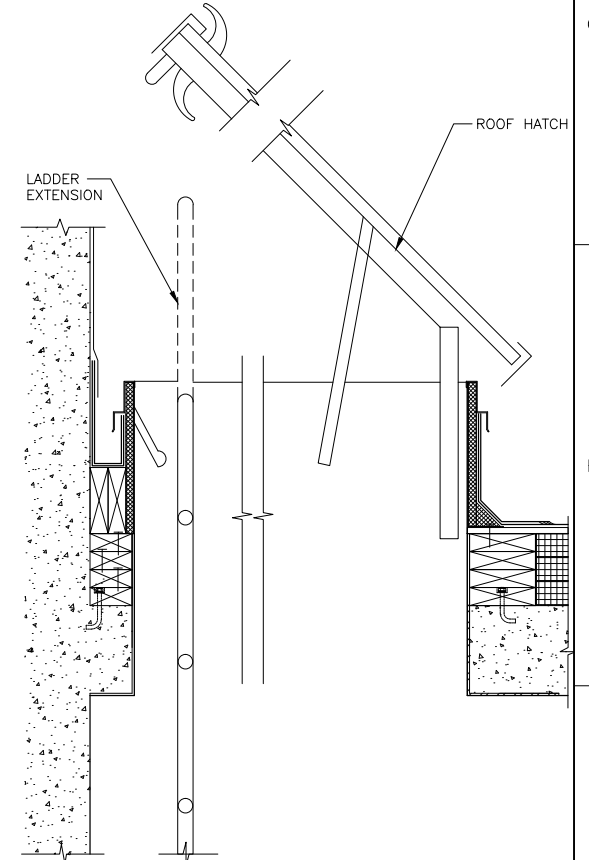
13  
A120-21



ROOF DRAINS DETAIL

SCALE: 1-1/2"=1'-0"

11  
120A-01



TYP ROOF HATCH

SCALE: 1-1/2"=1'-0"

15  
120A-01



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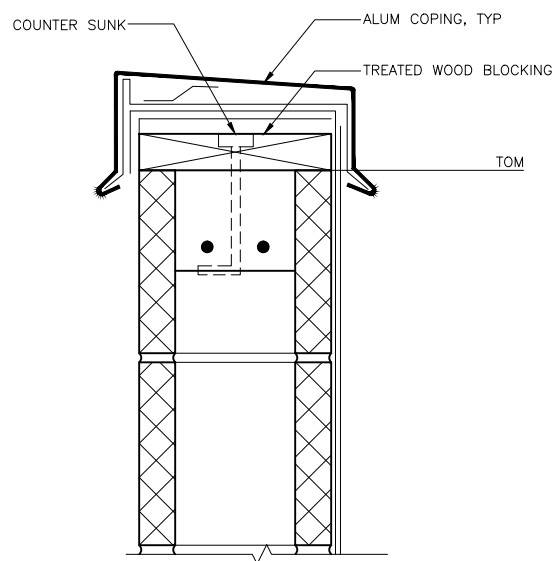
SCREENINGS BUILDING  
DETAILS 1



FILENAME	120A-51.dwg
SCALE	1-1/2"=1'-0"

SHEET	120A-51
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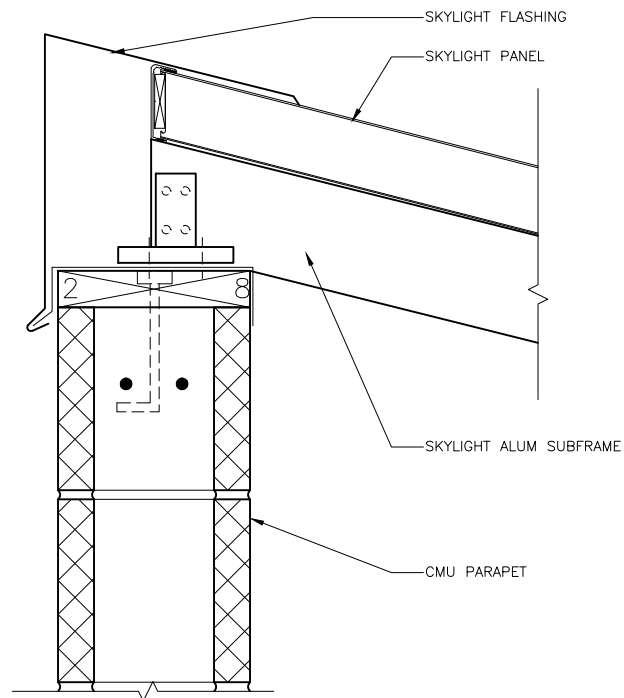
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PARAPET DETAIL

SCALE: 3" = 1'-0"

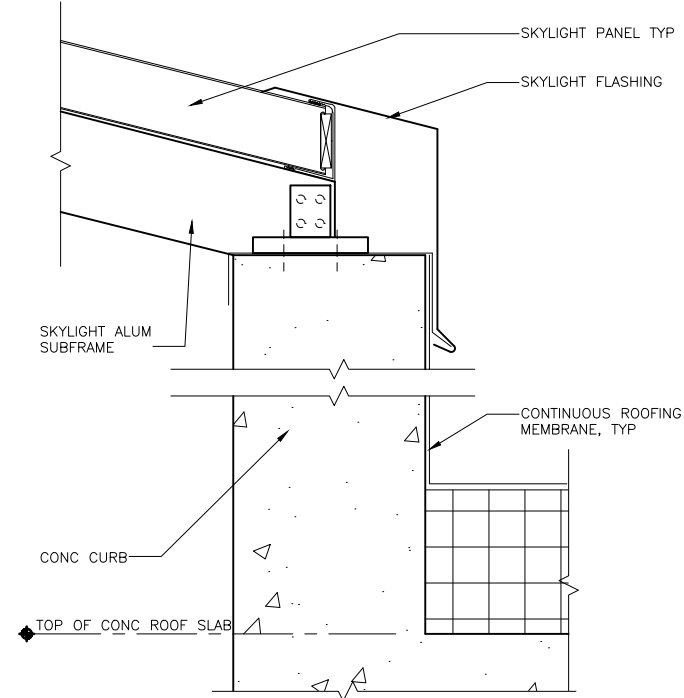
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120A-31



SKYLIGHT CURB DETAIL

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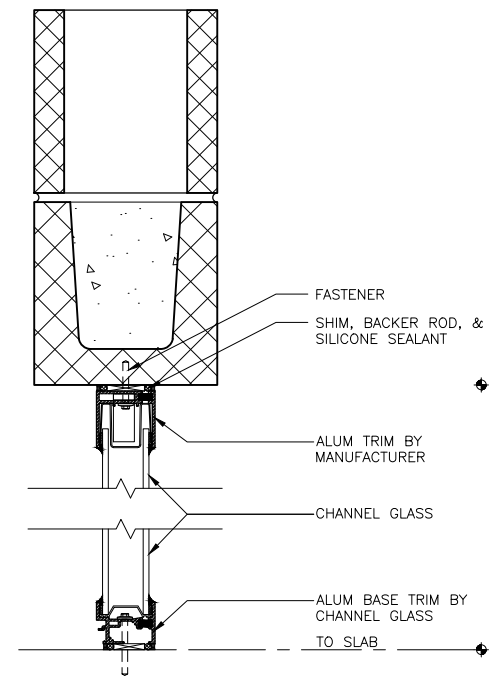
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120A-31



SKYLIGHT CURB DETAIL

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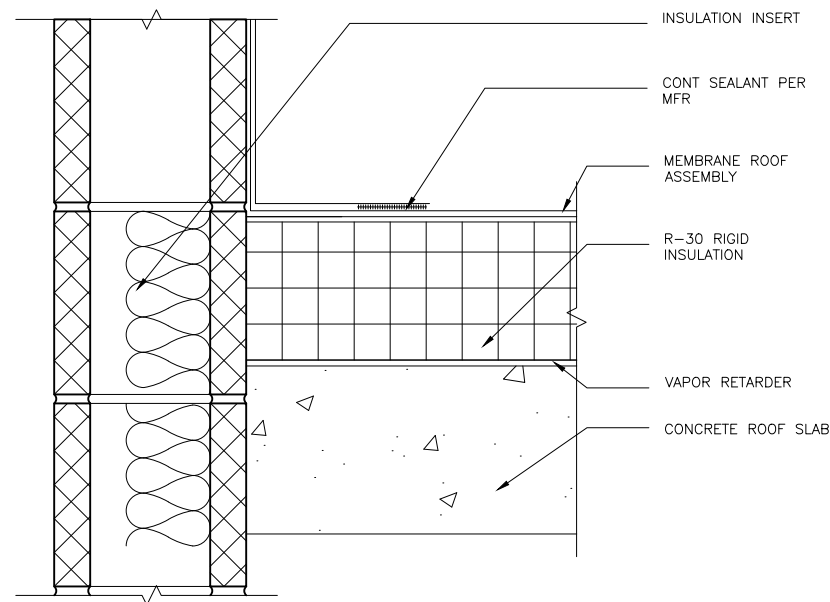
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120A-31



CHANNEL GLASS HEAD/SILL

SCALE: 3" = 1'-0"

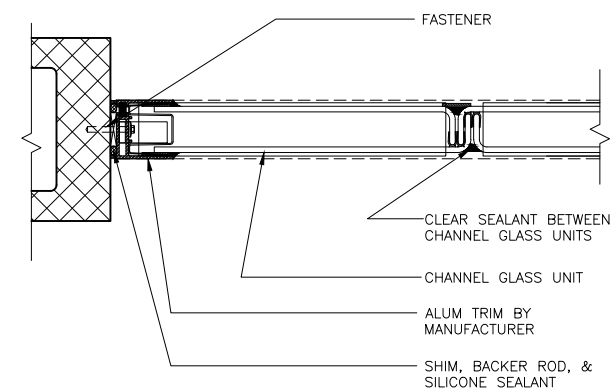
4  
120A-31



PARAPET DETAIL

SCALE: 3" = 1'-0"

5  
120A-31



CHANNEL GLASS JAMB

SCALE: 3" = 1'-0"

8  
120A-31



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SCREENINGS BUILDING  
DETAILS 2

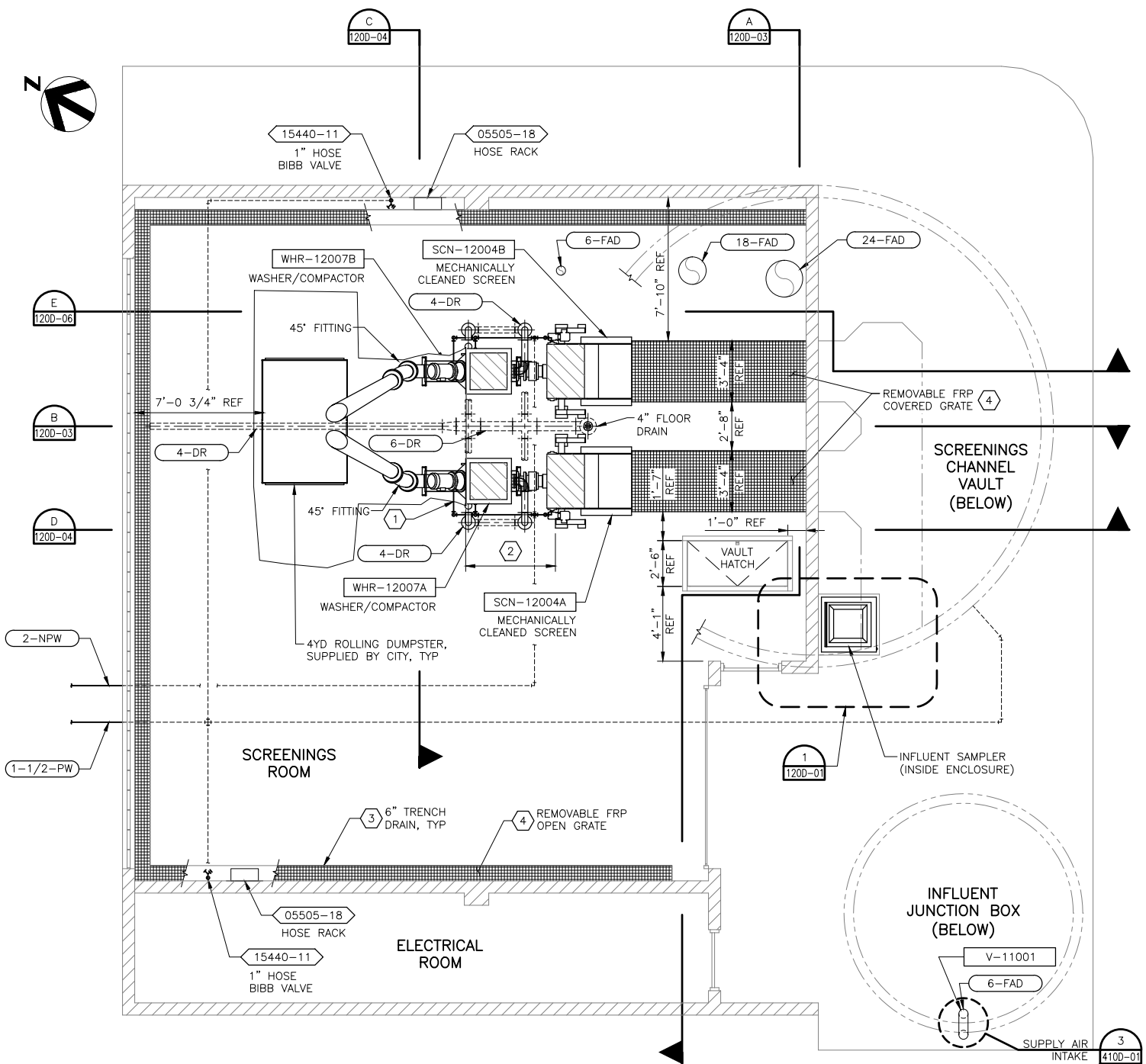


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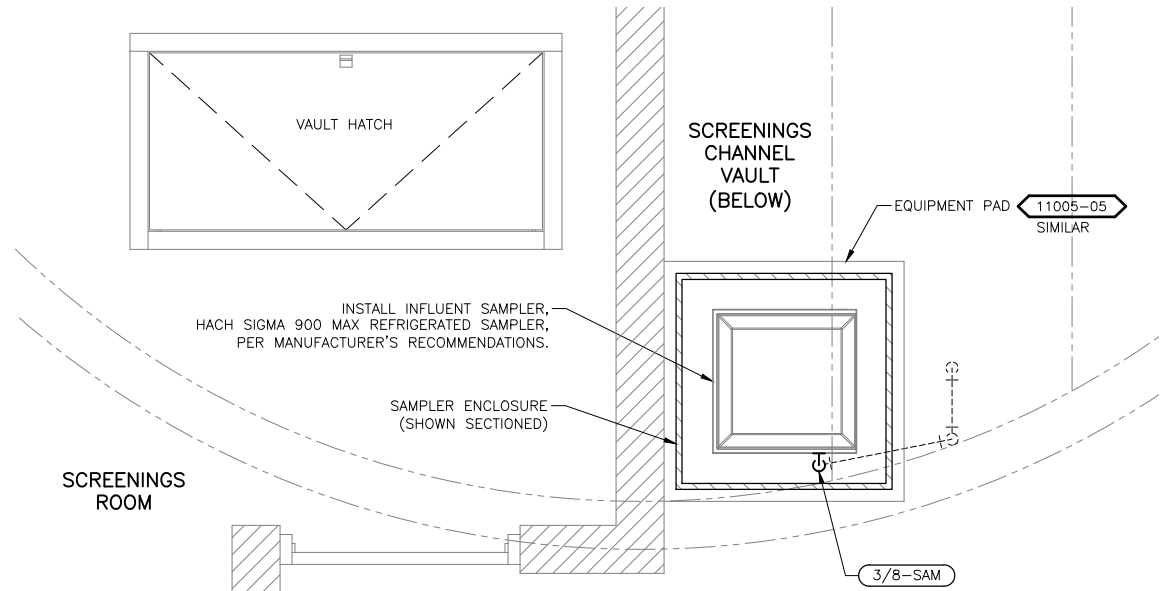
SHEET  
120A-52



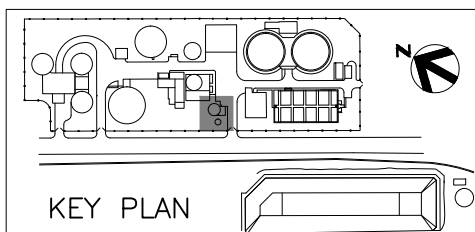
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SCREENINGS ROOM PROCESS PLAN  
1/4" = 1'-0"  
NOTE: TOP OF SCREENS, FOUL AIR AND HVAC DUCTING NOT SHOWN FOR CLARITY.



SAMPLER CLOSET DETAIL  
3/4" = 1'-0"



KEY PLAN

- GENERAL NOTES:
- A. ALL PIPING 2-INCH IN DIAMETER AND SMALLER SHALL BE FIELD ROUTED BY CONTRACTOR AND NOTED ON RECORD DRAWINGS.
- KEY NOTES:
- 1 TO WASH WATER AND SOLENOID VALVES FOR SCREENS AND WASHER/COMPACTOR UNITS. MOUNT TO STRUT MODULAR FRAMING.
- 2 LOCATE LIP OF WASHER/COMPACTOR HOPPER AS REQUIRED BY MECHANICALLY CLEANED SCREEN MANUFACTURER, TYP.
- 3 TRENCH DRAIN IN SLAB, SEE DETAIL 5 ON SHEET 120S-05.
- 4 CONTRACTOR TO DESIGN FRP GRATING FOR TRENCH DRAINS AND OPENINGS THROUGH FLOOR SLAB. SEE SPECIFICATION SECTION 06610.



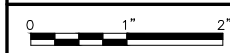
1	APR 2014	RECORD DRAWINGS
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DESIGNED	S. CHILUKURI
DRAWN	B. LILLY
CHECKED	J. KOCH
PROJECT NUMBER	171097

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SCREENINGS BUILDING  
SCREENINGS ROOM  
PROCESS PLAN

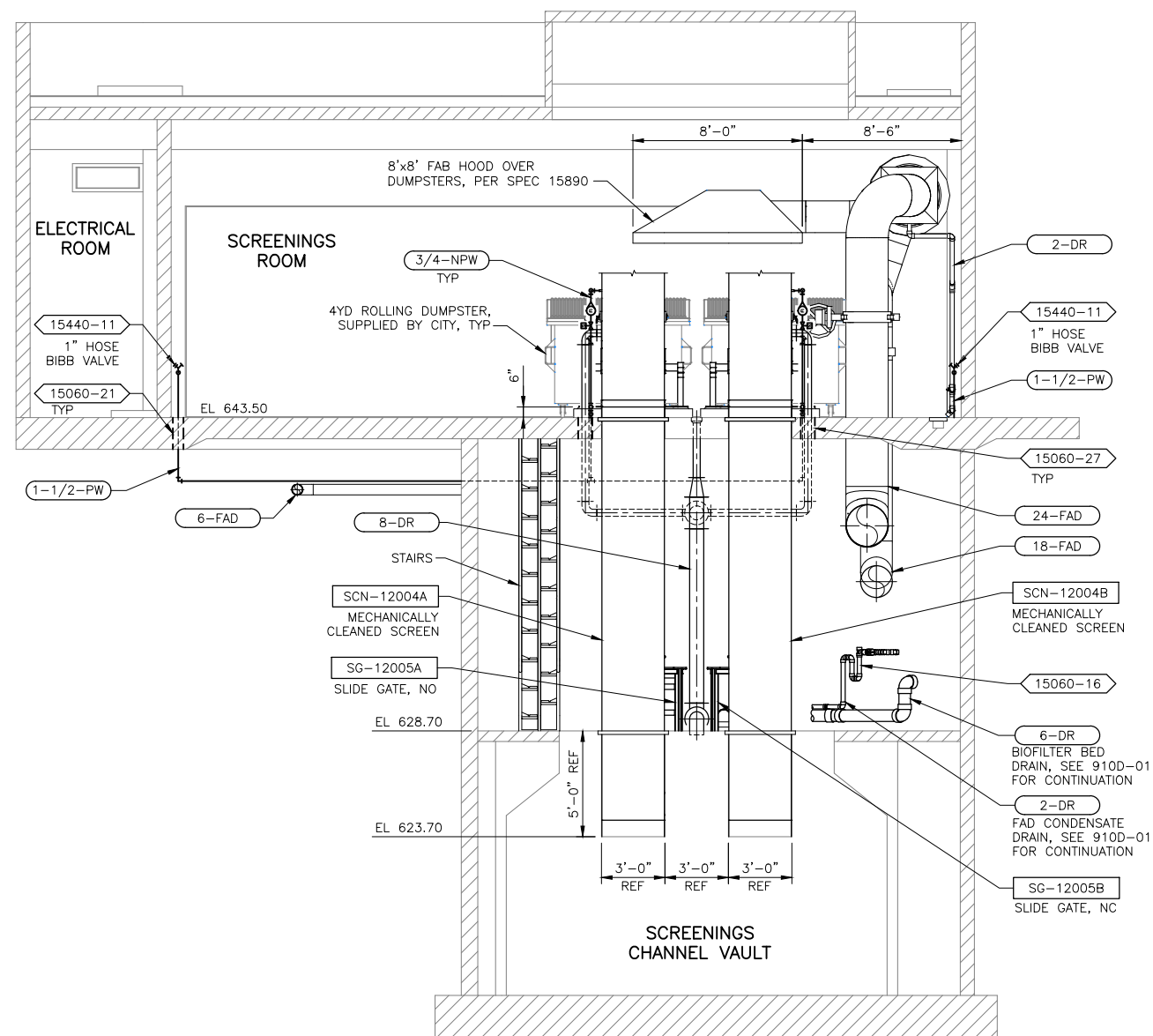


FILENAME	120D-01.dwg
SCALE	AS NOTED

SHEET	120D-01
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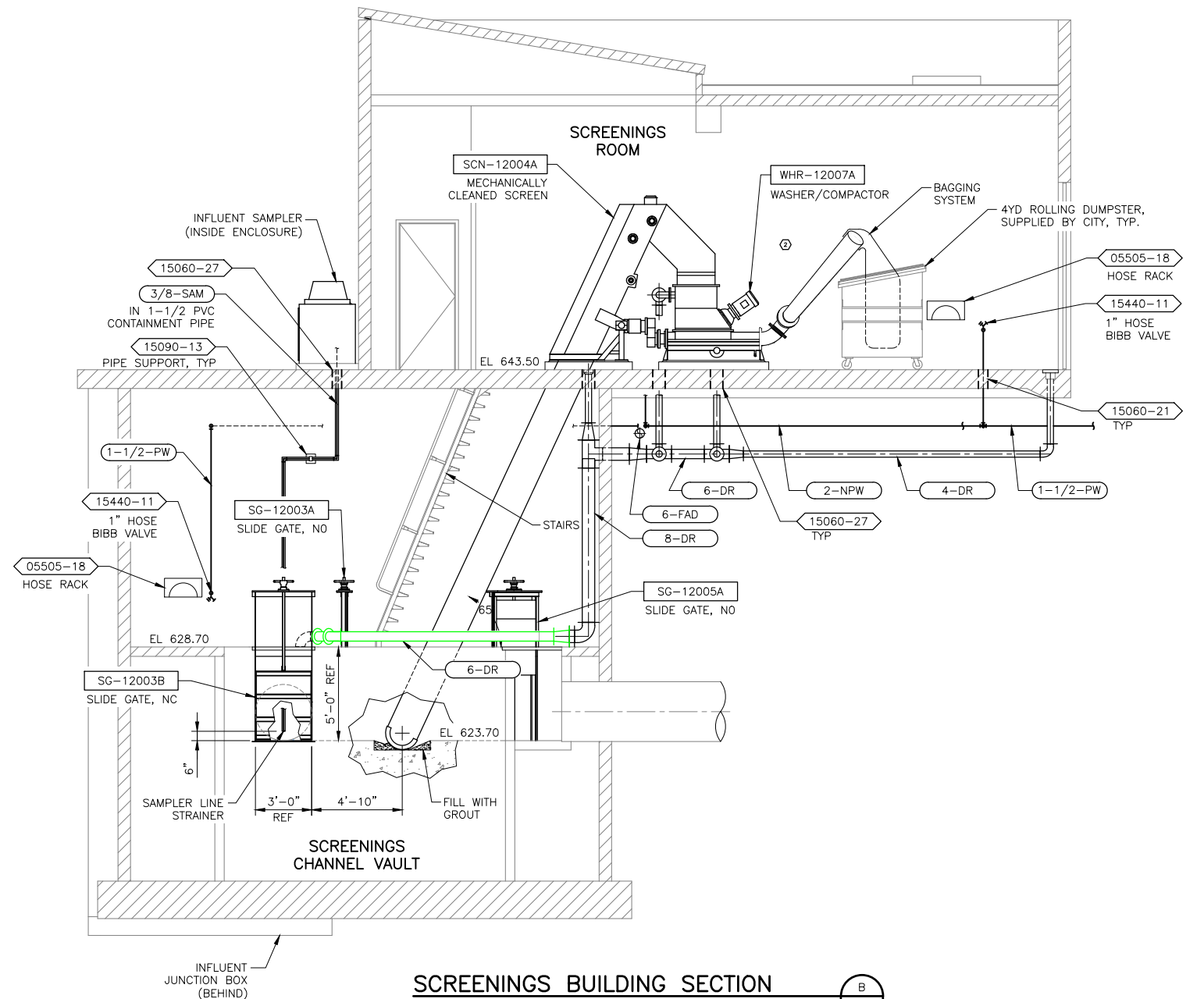
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SCREENINGS BUILDING SECTION

1/4" = 1'-0"

A  
1200-01



SCREENINGS BUILDING SECTION

1/4" = 1'-0"

B  
1200-01



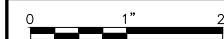
ISSUE	DATE	DESCRIPTION
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SCREENINGS BUILDING  
PROCESS SECTIONS

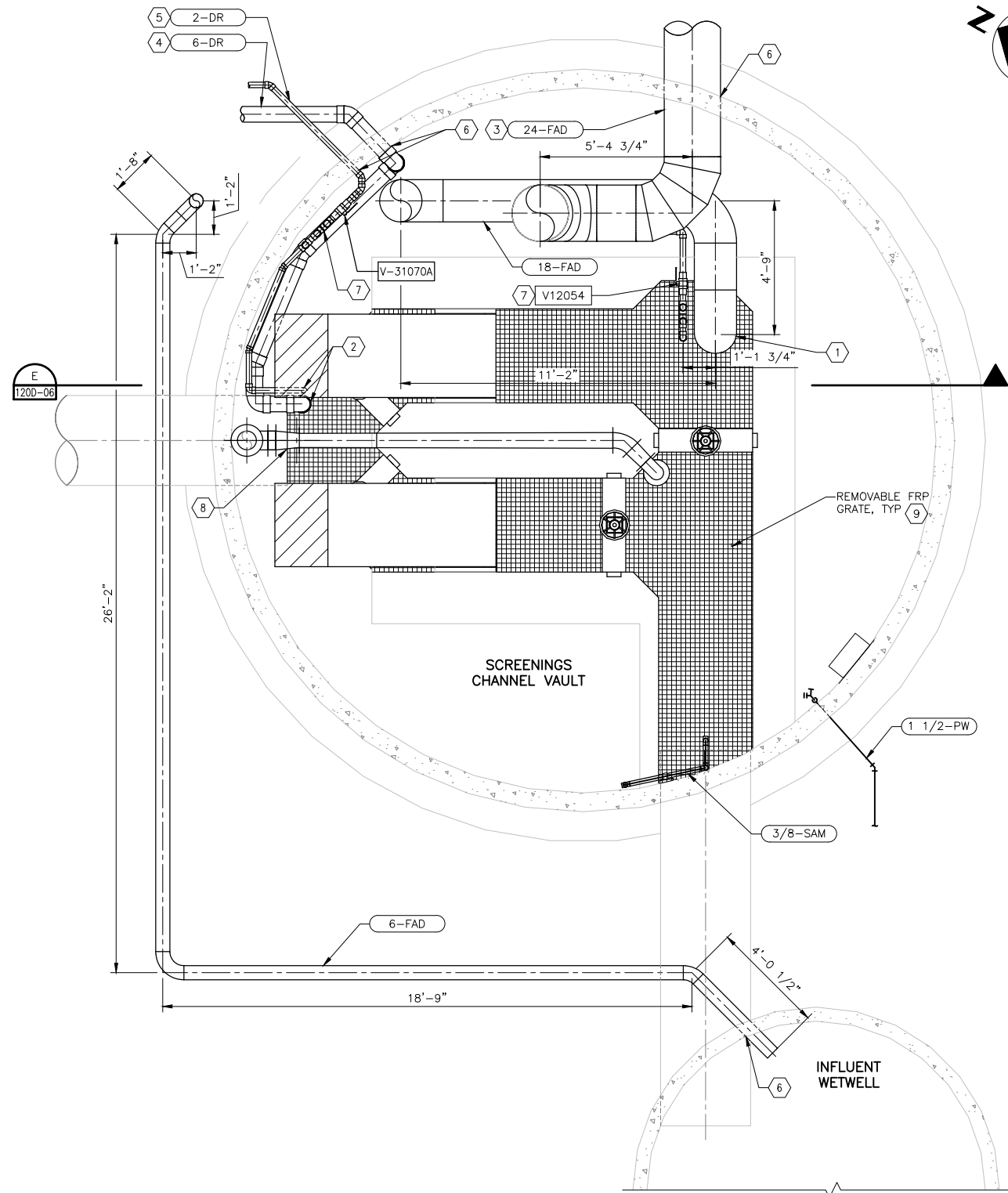


FILENAME	120D-03.dwg
SCALE	AS NOTED

SHEET	120D-03
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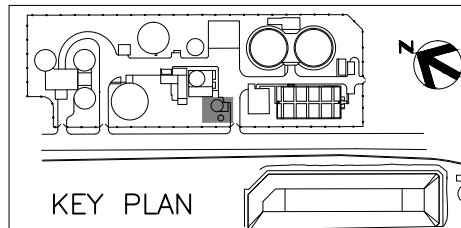
LOWER LEVEL PLAN  
3/8" = 1'-0"

GENERAL NOTES:

- DUCT, FAN, DAMPER AND HOOD SUPPORTS:  
PROVIDE SUPPORTS AS SPECIFIED FOR PIPES. USE THE FOLLOWING STANDARD DETAILS WHERE APPROPRIATE:  
15060-19 DUCT IN EXISTING WALL  
15090-05 MEDIUM PIPE SUPPORT - WALL  
15090-06 HEAVY PIPE SUPPORT - WALL  
15090-07 HEAVY DUTY PIPE SUPPORT - WALL  
15090-08 SURFACE MOUNT MODULAR STRUT  
15090-17 TRAPEZE HANGER  
15090-95 VERTICAL DUCT SUPPORT  
15090-96 ROOF DUCT SUPPORT
- THE FAD MANUFACTURE IS RESPONSIBLE FOR LOCATING AND DESIGNING THE FAD DUCT SUPPORTS, INCLUDING THE STRUCTURAL INTEGRITY OF THE FAD. THE DESIGN SHALL BE DONE BY A LICENSED ENGINEER IN THE STATE OF WASHINGTON.

KEY NOTES:

- FAD 2" BELOW GRATING WITH SST SCREEN.
- ROUTE DRAINS TO INFLUENT CHANNEL.
- SEE 000C-05 YARD PIPING FOR CONTINUATION.
- SEE 910M-01 BIOFILTER PIPING FOR CONTINUATION.
- SEE 310M-01 FOR CONDENSATE DRAIN CONTINUATION.
- WALL AND FLOOR PENETRATION SHALL USE STANDARD DETAIL 15060-30 AND 15060-22 WITH LINK SEAL.
- STANDARD DETAIL FOR CONDENSATE DRAIN 15060-16.
- 8-DR FROM MECHANICAL SCREEN, SEE SECTION B/120D-03.
- CONTRACTOR TO DESIGN FRP GRATING, SEE SPECIFICATION SECTION 06600.



SCREENINGS BUILDING  
FOUL AIR DUCTING  
LOWER LEVEL PLAN



FILENAME 120D-05.dwg  
SCALE AS NOTED

SHEET  
120D-05



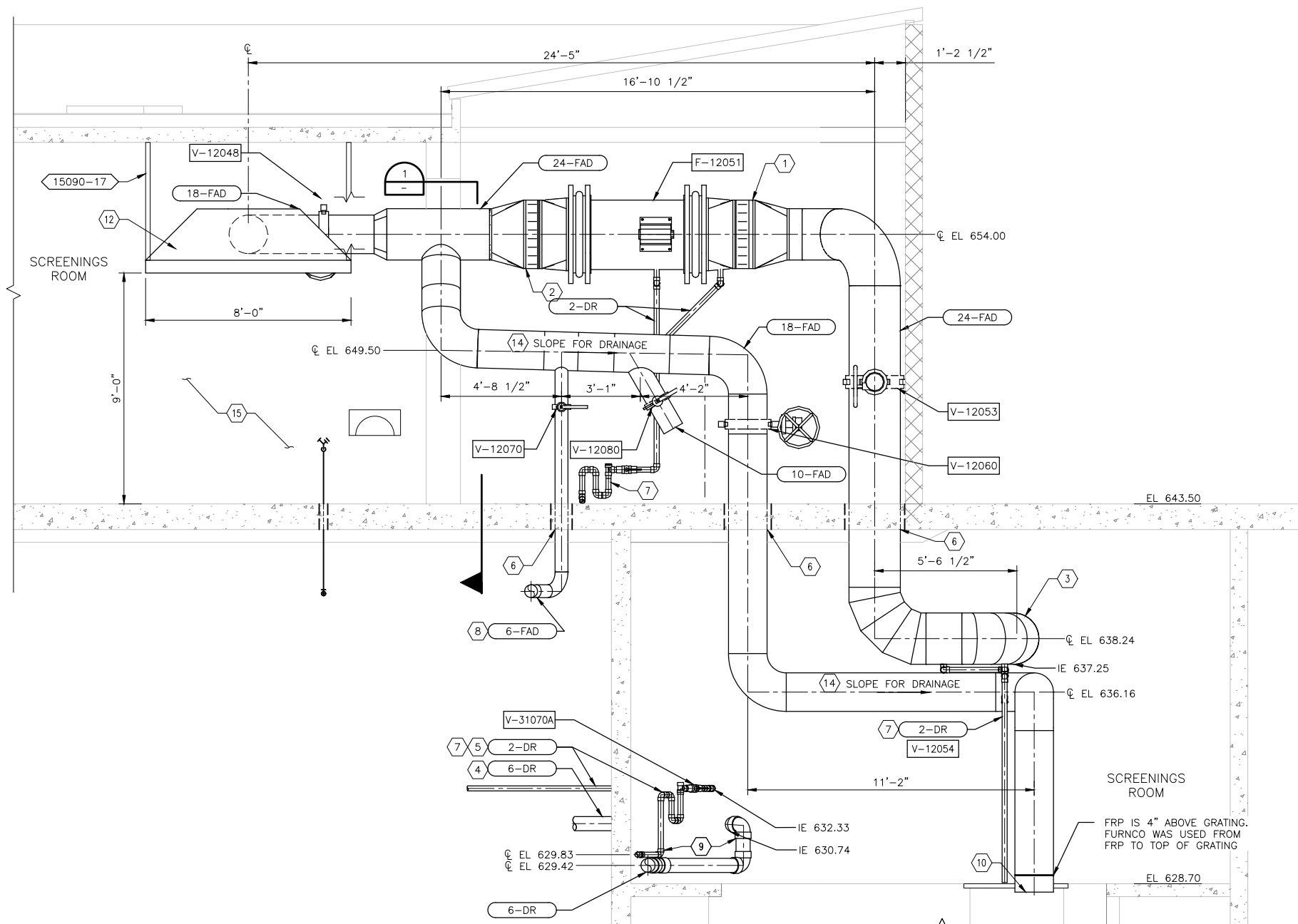
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1	APR 2014	RECORD DRAWINGS
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	D. HARMON
DRAWN	B. LILLY
CHECKED	J. KOCH
PROJECT NUMBER	171097

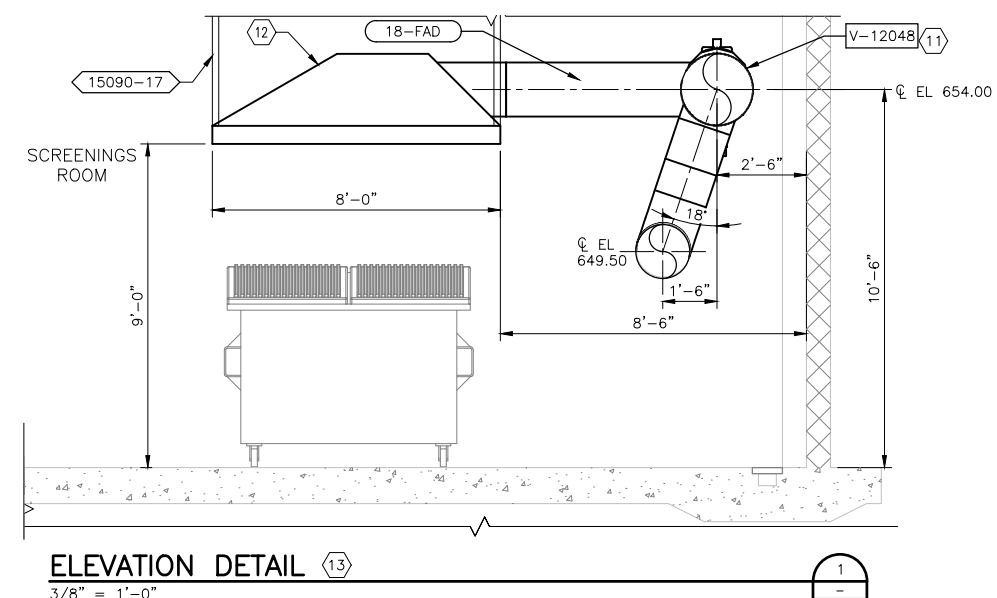
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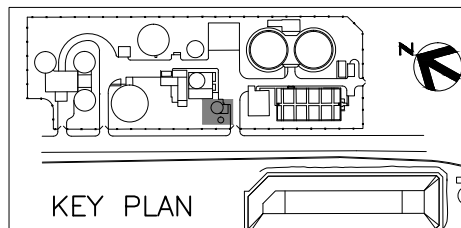
**SECTION** 13  
3/8" = 1'-0"



**ELEVATION DETAIL** 

---

3/8" = 1'-0"



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## SCREENINGS BUILDING FOUL AIR DUCTING SECTION AND DETAIL

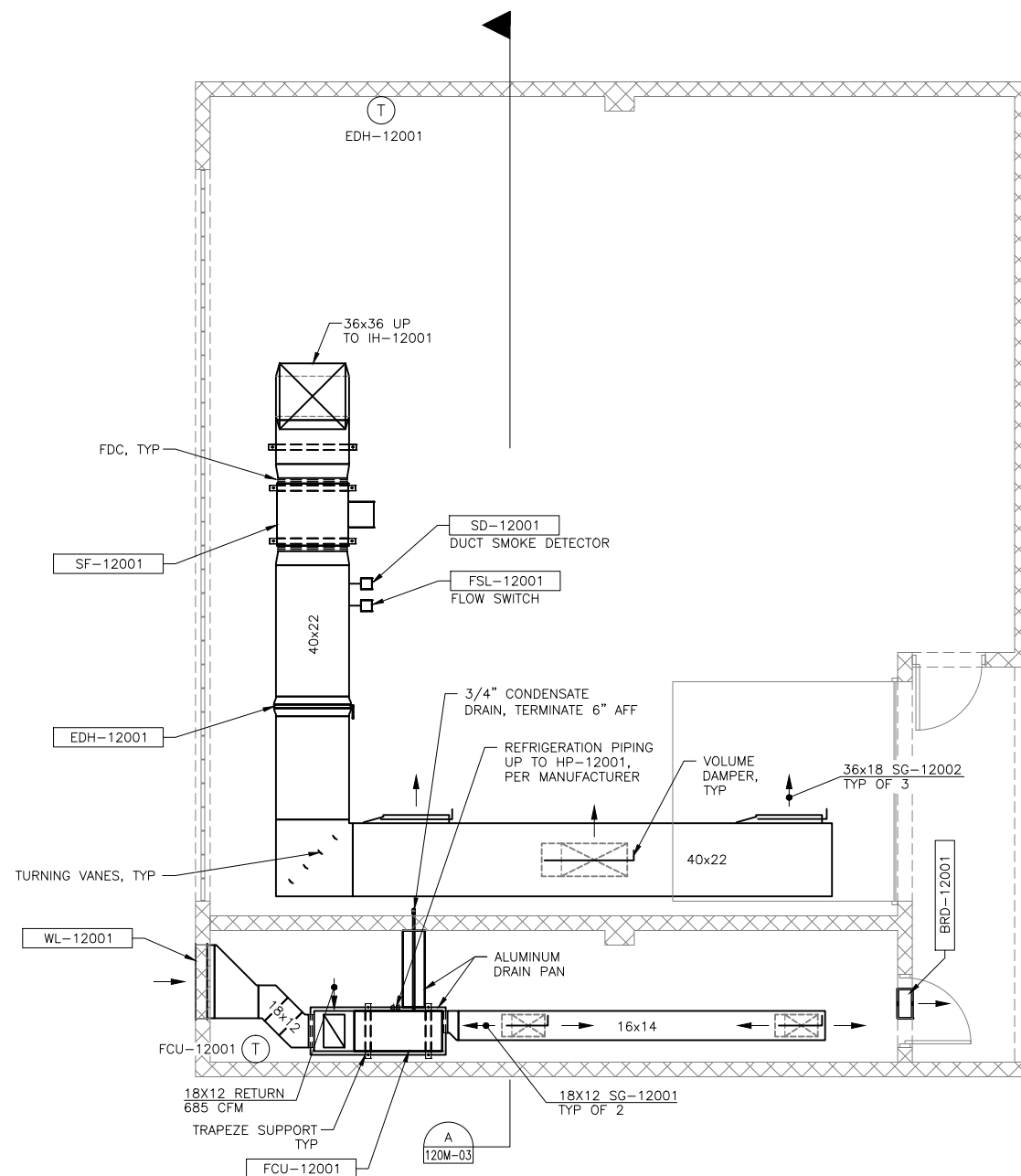


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SCALE	AS NOTED		

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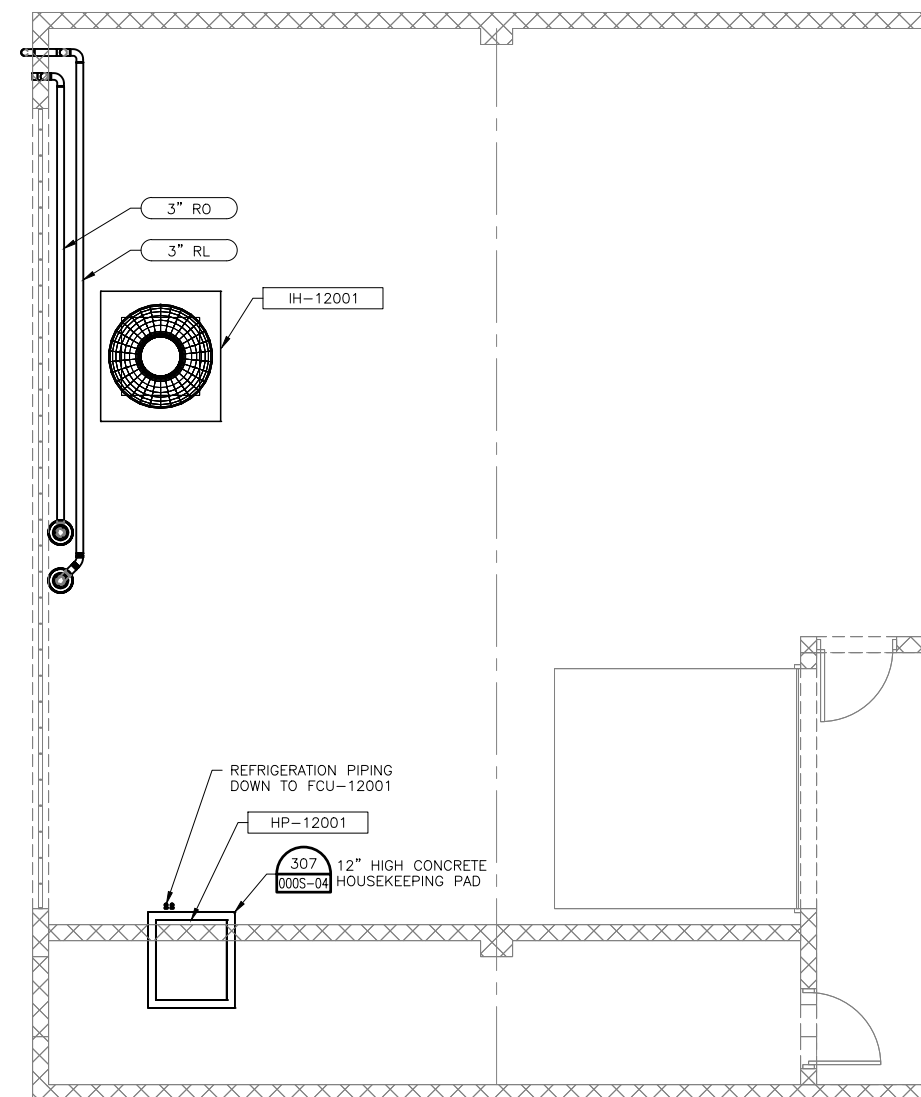


NOTES:  
EQUIPMENT SUPPORTS SHOWN. ALL OTHER  
DUCT SUPPORTS SHALL BE PER 15890 AND  
SMACNA STANDARDS.



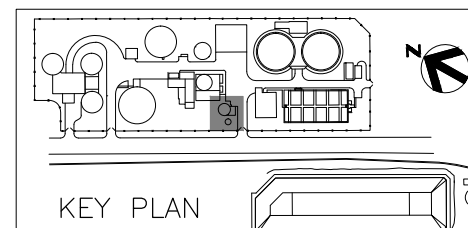
FLOOR PLAN

SCALE: 1/4" = 1'-0"



ROOF PLAN

SCALE: 1/4" = 1'-0"



KEY PLAN



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SCREENINGS BUILDING  
MECHANICAL HVAC  
FLOOR & ROOF PLAN



FILENAME 120M-01.dwg  
SCALE 1/4"=1'-0"

SHEET  
120M-01

SHEET

**120M-02**



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SUPPLY GRILLE SCHEDULE

SYMBOL	MANUFACTURER & MODEL #	NOMINAL DUCT SIZE (IN)	CFM	REMARKS
SG-12001	TITUS 301FS OR EQUAL	18x12	350	ALUMINUM WITH 3/4" SPACING AND SINGLE DEFLECTION REGISTER
SG-12002	TITUS 301FS OR EQUAL	36x18	2,035	ALUMINUM WITH 3/4" SPACING AND SINGLE DEFLECTION REGISTER

WALL LOUVER SCHEDULE

SYMBOL	MANUFACTURER & MODEL #	CFM	DIMENSION	REMARKS
WL-12001	RUSKIN ELF375DX OR EQUAL	700	40x16	

ELECTRIC DUCT HEATER SCHEDULE

SYMBOL	MANUFACTURER & MODEL #	LOAD (KW)	DUCT DIMENSION	WEIGHT (LBS)	VOLTAGE/PHASE/HZ	REMARKS
EDH-12001	INDEECO ULTRA SAFE DUCT HEATER M SERIES OR EQUAL	113.0	42x22	730.0	460/3/60	ELECTRIC EXPLOSION PROOF DUCT HEATER APPROVED FOR CLASS I, DIVISION 2, GROUP D. PROVIDE SOLID STATE PROPORTIONAL CONTROL WITH BUILT IN ZERO CROSS SWITCHING AND FIELD INSTALLED THERMOSTAT. PROVIDE DISCONNECT SWITCH, AIRFLOW SWITCH, WARNING PILOT LIGHT, AND HEATER ON PILOT LIGHT. MOUNT UNIT PER MANUFACTURER RECOMMENDATIONS.

IN-LINE SUPPLY FAN SCHEDULE

SYMBOL	MANUFACTURER & MODEL #	CFM	ESP (IN W.C.)	VOLTS/PHASE	POWER (HP)	WEIGHT (LBS)	REMARKS
SF-12001	GREENHECK BSQ-240HP-50 OR EQUAL	6,100	2.0	460/3	5.0	420.0	PROVIDE FACTORY HANGING SPRING ISOLATOR. PROVIDE DUCT SMOKE DETECTOR AND FLOW SWITCH MOUNTED IN DUCTWORK.

SPLIT SYSTEM HEAT PUMP SCHEDULE

SYMBOL	MANUFACTURER & MODEL #	MINIMUM SUPPLY FAN CFM	E.S.P.	SUPPLY FAN HP	MINIMUM OUTSIDE AIR (CFM)	VOLTAGE/ PHASE	COOLING CAPACITY TOTAL (MBH)	SEER	COOLING ENTERING/LEAVING AIR TEMP (F)	HEATING CAPACITY ⑧ 47F/17F (MBH)	COP ⑧ 47F/17F	SUMMER/WINTER OUTDOOR AMBIENT (F)	OPERATING WEIGHT (LBS)	REMARKS
FCU-12001	CARRIER FX4CNF024 OR EQUAL	700	0.4	0.33	15.0	208/1	23.4		85/55			SUMMER = 95 F WINTER = 10 F	130	INSTALL AND SIZE REFRIGERANT PIPING PER MANUFACTURER INSTRUCTION AND RECOMMENDATION. PROVIDE ALL REQUIRED MANUFACTURER ACCESSORIES FOR A COMPLETE WORKABLE SYSTEM. R-410A. PROVIDE MATCHING CANFAB (OR EQUAL) MXING BOX FOR ECONOMIZER CYCLE.
HP-12001	CARRIER 25HPA424 OR EQUAL					208/1		14		23.8/14.6	3.64/2.58	SUMMER = 95 F WINTER = 10 F	230	MCA=16.73

BAROMETRIC RELIEF DAMPER SCHEDULE

SYMBOL	MANUFACTURER & MODEL #	NOMINAL SIZE (IN)	CFM	REMARKS
BRD-12001	RUSKIN BD2/A2 OR EQUAL	16x8	700	VERTICAL MOUNT, HORIZONTAL FLOW. GALVANIZED STEEL, FLANGE ON DISCHARGE WITH BIRD SCREEN

GRAVITY INTAKE HOOD

SYMBOL	MANUFACTURER & MODEL #	THROAT SIZE (IN)	DIMENSIONS	AIRFLOW (CFM)
IH-12001	LOREN COOK GI OR EQUAL	36"x36"	65"x60"x22"	6,100

SEQUENCE OF OPERATION

SF-12001 (SCREENING ROOM):

SUMMER: SF-12001 SHALL RUN CONTINUOUSLY.  
WINTER: SF-12001 SHALL RUN CONTINUOUSLY. ON A CALL FROM THE ROOM THERMOSTAT ELECTRIC DUCT  
HEATER (EDH-12001) WILL BE ENERGIZED TO MAINTAIN ZONE HEATING TEMPERATURE SETPOINT AT 45 DEGREE  
F (ADJUSTABLE).

SF-12001 SHALL BE FITTED WITH A DUCT MOUNTED FLOW DETECTION DEVICE CONNECTED TO ALARM  
SIGNALING SYSTEM (SCADA) TO INDICATE VENTILATION SYSTEM FAILURE. WIRING PER DIVISION 13 AND 16.

LOCAL AND REMOTE ALARMS FOR VENTILATION SYSTEM FAILURE (AS DETECTED BY FLOW SWITCH) SHALL BE  
PROVIDED.

IF SMOKE IS DETECTED BY THE SUPPLY DUCT SMOKE DETECTOR, THEN SF-12001 AND EDH-12001 SHALL  
SHUT OFF AND SIGNAL AN ALARM AT SCADA TO INDICATE SYSTEM SHUT DOWN. WIRING PER DIVISION 13 AND  
16.

FCU-12001/HP-12001 (ELECTRICAL ROOM):  
SUMMER: UNIT SHALL RUN CONTINUOUSLY TO MAINTAIN THE ROOM AT 85 DEGREE F (ADJUSTABLE) SETPOINT.  
WINTER: UNIT SHALL RUN CONTINUOUSLY. ON A CALL FROM THE ROOM THERMOSTAT THE UNIT SHALL  
ENABLE HEATING TO MAINTAIN ZONE HEATING TEMPERATURE SETPOINT AT 60 DEGREE F (ADJUSTABLE).

ZONE THERMOSTATIC CONTROLS SHALL BE CAPABLE OF A DEADBAND OF AT LEAST 5 DEGREE F WITHIN WHICH  
THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS SHUT OFF OR REDUCED TO A MINIMUM.

ECONOMIZER MODE: THE ECONOMIZER CYCLE SHALL BE ENABLED WHENEVER THE OUTDOOR AIR TEMPERATURE  
IS BETWEEN 48F AND 72F (ADJUSTABLE) AND ALSO LESS THAN THE RETURN AIR TEMPERATURE. THE  
ECONOMIZER DAMPERS SHALL REMAIN AT THEIR MINIMUM OUTDOOR AIR POSITION WHENEVER THE ECONOMIZER  
CYCLE IS DISABLED. ECONOMIZER SHALL BE ACTIVATED WHEN APPROPRIATE AS THE FIRST STAGE OF  
COOLING. AIR ECONOMIZER SHALL BE CAPABLE OF AUTOMATICALLY MODULATING OUTSIDE AND RETURN AIR  
DAMPERS TO PROVIDE 100% OF THE DESIGN SUPPLY AIR AS OUTSIDE AIR TO ELIMINATE MECHANICAL COOLING.  
BAROMETRIC RELIEF DAMPER (BRD-12001) SHALL BE OPENED TO MAINTAIN ROOM NOT TO EXCEED 0.1"W.C.  
(ADJUSTABLE).



HDR Engineering, Inc.

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CHECKED	T. KONTONICKAS
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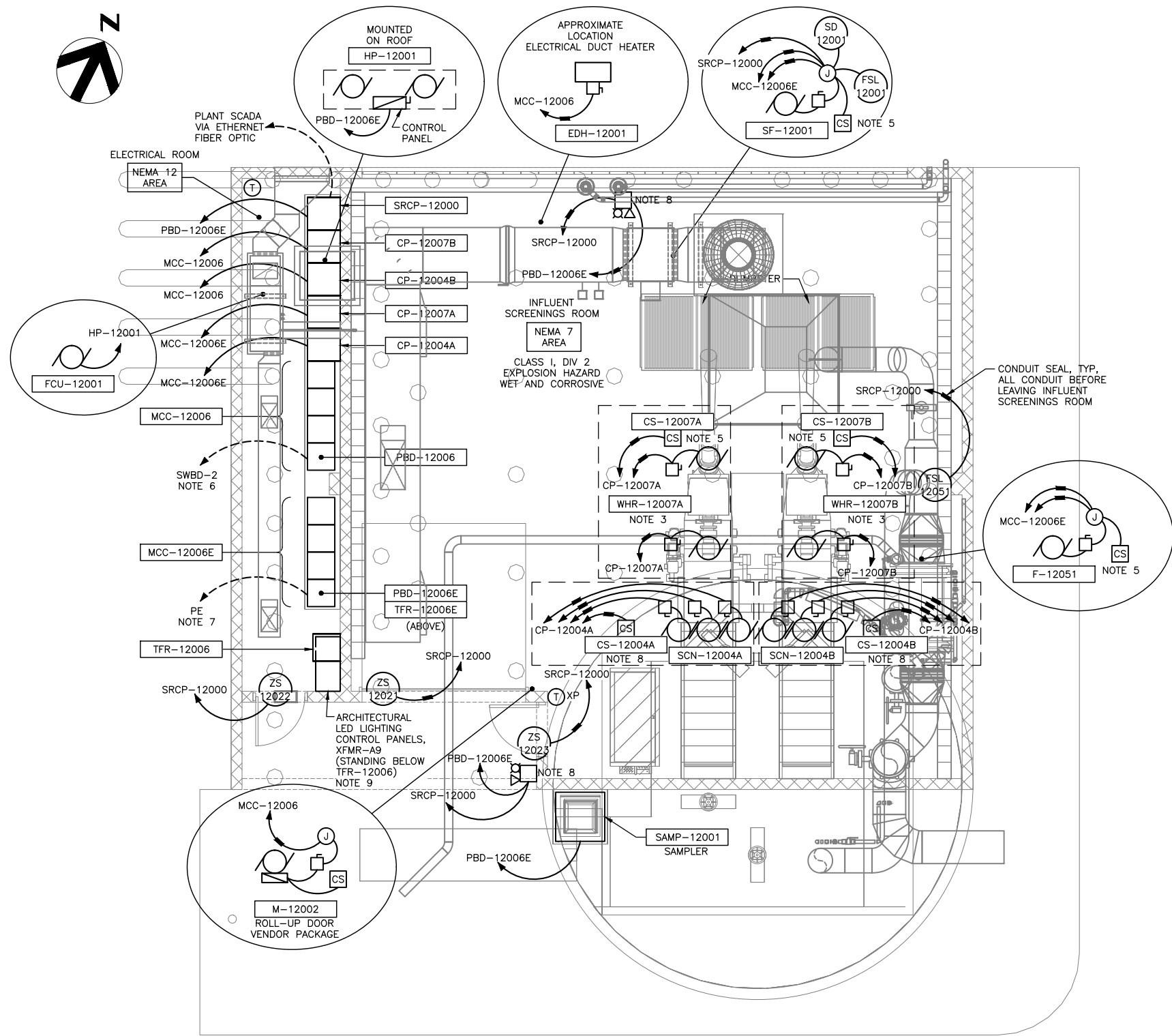
SCREENINGS BUILDING  
MECHANICAL HVAC SCHEDULES  
& SEQUENCE OF OPERATION



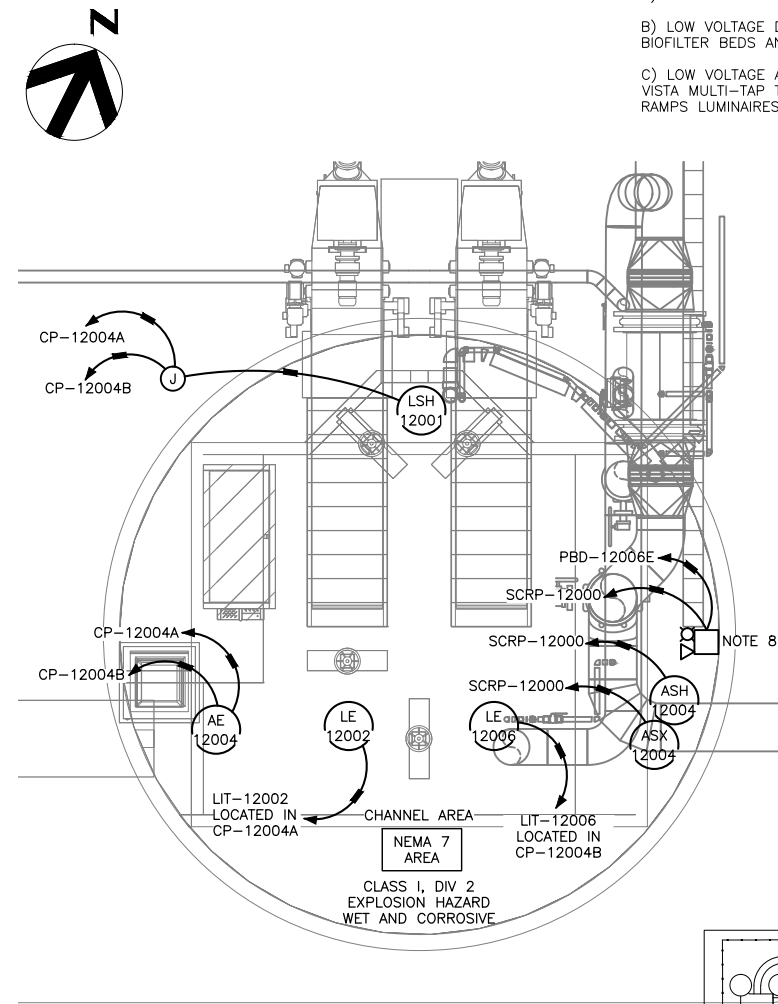
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SHEET  
**120M-03**

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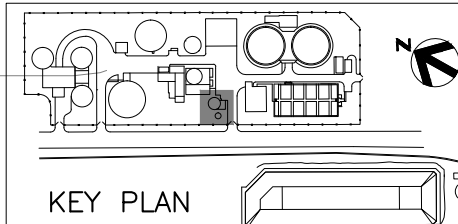
SCREENINGS BUILDING  
POWER & CONTROL PLAN  
SCALE: 1/4" = 1'-0"



SCREENINGS BUILDING CHANNEL  
POWER & CONTROL PLAN  
SCALE: 1/4" = 1'-0"

NOTES:

1. REFER TO ONE-LINE DIAGRAMS, PANELBOARD SCHEDULES, CONTROL DIAGRAM AND CONDUIT & CABLE SCHEDULE.
2. CONTRACTOR TO PROVIDE CONCRETE-ENCASED ELECTRODE SYSTEM FOR NEW SCREENS BUILDING, AS PER NEC ART. 250.52 (A)(3) AND CONTRACT DOCUMENTS.
3. SCREENINGS AND WASHER COMPACTORS ARE VENDOR PACKAGES. REFER TO PROCESS AND INSTRUMENTATION DIAGRAMS (P&ID) FOR DETAILS ON DEVICES TYPICALLY INCLUDED IN VENDOR PACKAGES, INCLUDING INTERCONNECTING WIRING BETWEEN DEVICES, CONTROL PANELS AND CONTROL STATIONS.
4. EXACT EQUIPMENT/DEVICE/INSTRUMENT LOCATION TO BE FIELD DETERMINED AS PER MANUFACTURER'S INSTALLATION PROCEDURES AND APPLICABLE CODES.
5. HAND-OFF SWITCHES LOCATED AT CONTROL STATIONS, NEMA 7, ENCLOSURES INSIDE SCREENINGS ROOM.
6. SWITCHBOARD "SWBD-2" IS LOCATED IN THE FAN BUILDING (OLD NAME IS HEADWORKS BUILDING).
7. PANELBOARD "PE" IS LOCATED IN THE BLOWER BUILDING. ESSENTIAL LOADS ARE FED FROM STANDBY POWER, IF UTILITY POWER FAILS.
8. AUDIBLE AND VISUAL ALARM FOR COMBUSTIBLE GAS LEL, IDENTIFIED IN P&ID SHEET 000Y-01, AS ALH-12009 AND QA-12009.
9. ARCHITECTURAL/PUBLIC ART SHOW LIGHTING PANELS INCLUDE:  
A) LIGHTING CONTROL PANEL.  
B) LOW VOLTAGE DC POWER SYSTEM, 24V DC FOR BIOFILTER BEDS AND CANOPIES LIGHTING FIXTURES.  
C) LOW VOLTAGE AC POWER SYSTEM, 12V AC, INCLUDES VISTA MULTI-TAP TRANSFORMER XFMR-A9 FOR STEP2 RAMPS LUMINAIRES.



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DRAWN	P. MCCLINTOCK
CHECKED	E. SWANSON
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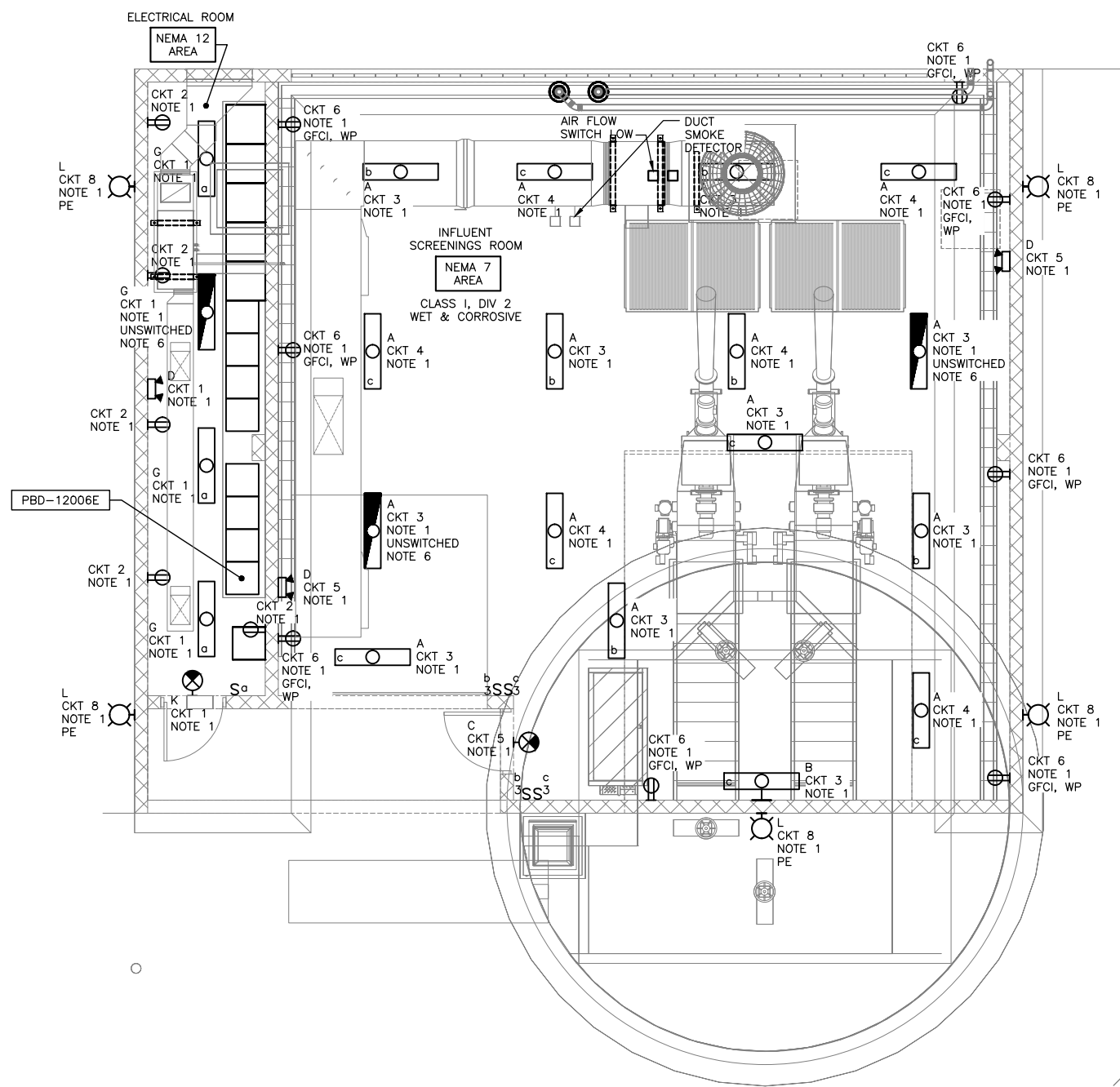
SCREENINGS BUILDING  
POWER AND CONTROL PLAN



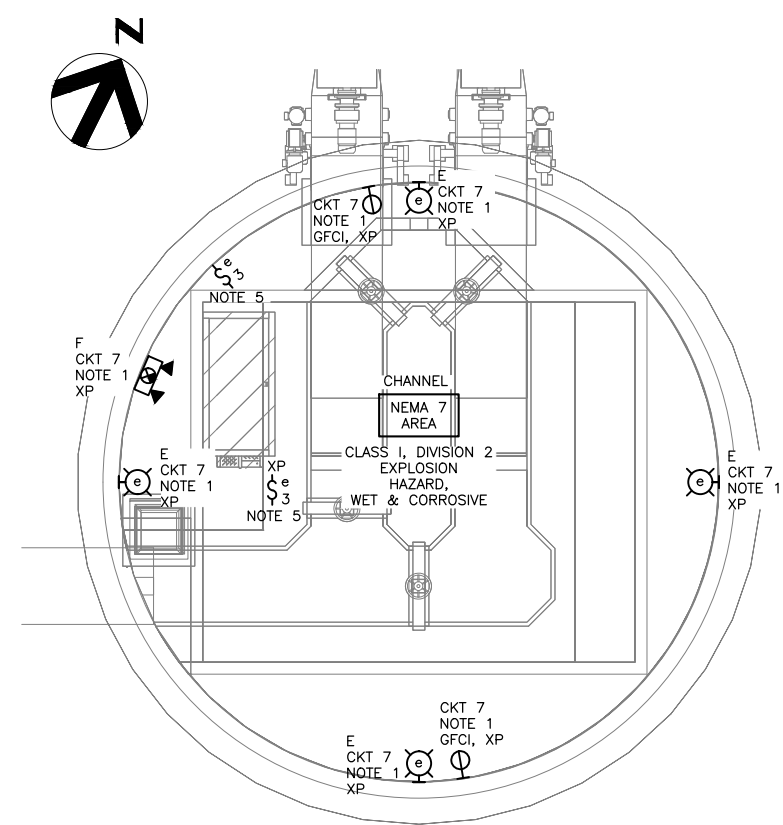
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SHEET	120E-01
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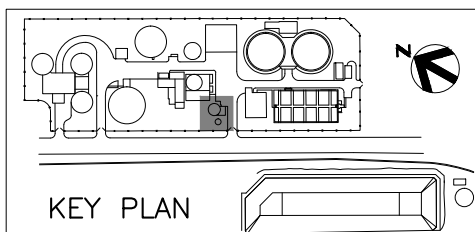


SCREENINGS BUILDING LIGHTING PLAN  
SCALE: 1/4" = 1'-0"



SCREENINGS BUILDING CHANNEL LIGHTING PLAN  
SCALE: 1/4" = 1'-0"

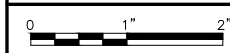
- NOTES:**
1. LIGHTING FIXTURES AND RECEPTACLES POWERED FROM PANELBOARD PBD-12006E.
  2. PANELBOARD SCHEDULES SHOWN ON SHEET 000E-08.
  3. FIXTURE MOUNTING HEIGHTS ARE THE PREFERRED LEVEL OF FEET ABOVE FINISHED FLOOR (AFF). MOUNTING HEIGHTS AND LOCATIONS SHALL BE FIELD ADJUSTED AS PRACTICAL TO AVOID INTERFERENCES WITH PIPING, HVAC EQUIPMENT, DUCTWORK, SKYLIGHTS, ETC.
  4. LIGHTING FIXTURE SCHEDULE IS SHOWN ON SHEET 000E-14.
  5. CHANNEL AREA LIGHT SWITCH IS LOCATED NEXT TO THE ENTRANCE HATCH IN THE SCREENINGS ROOM, ON THE WALL. A SECOND SWITCH (EXPLOSION-PROOF), IS LOCATED AT THE BOTTOM OF THE STAIRS IN THE CHANNEL.
  6. LIGHTING FIXTURE PROVIDED WITH EMERGENCY BATTERY PACK.



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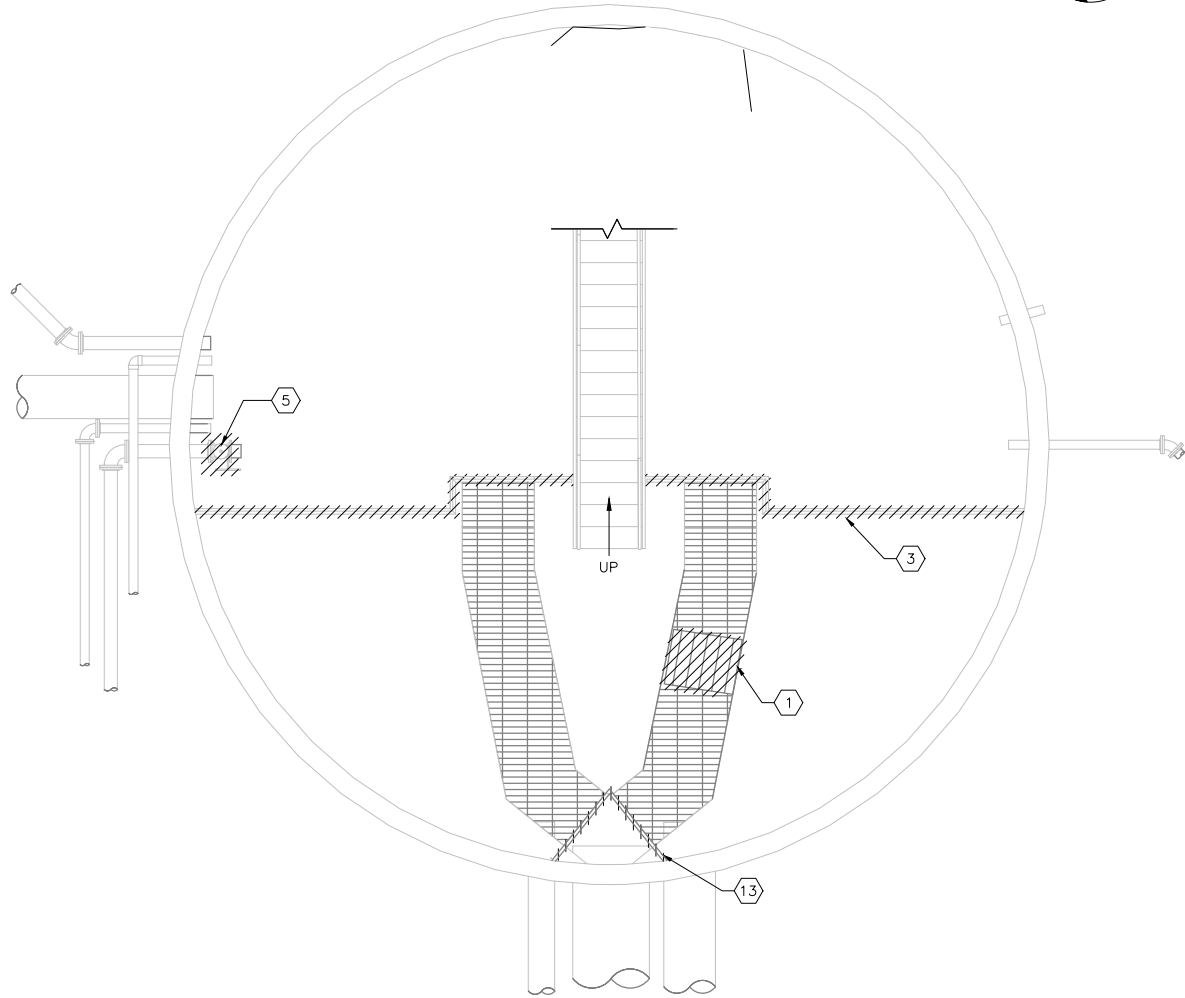


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SHEET	120E-02
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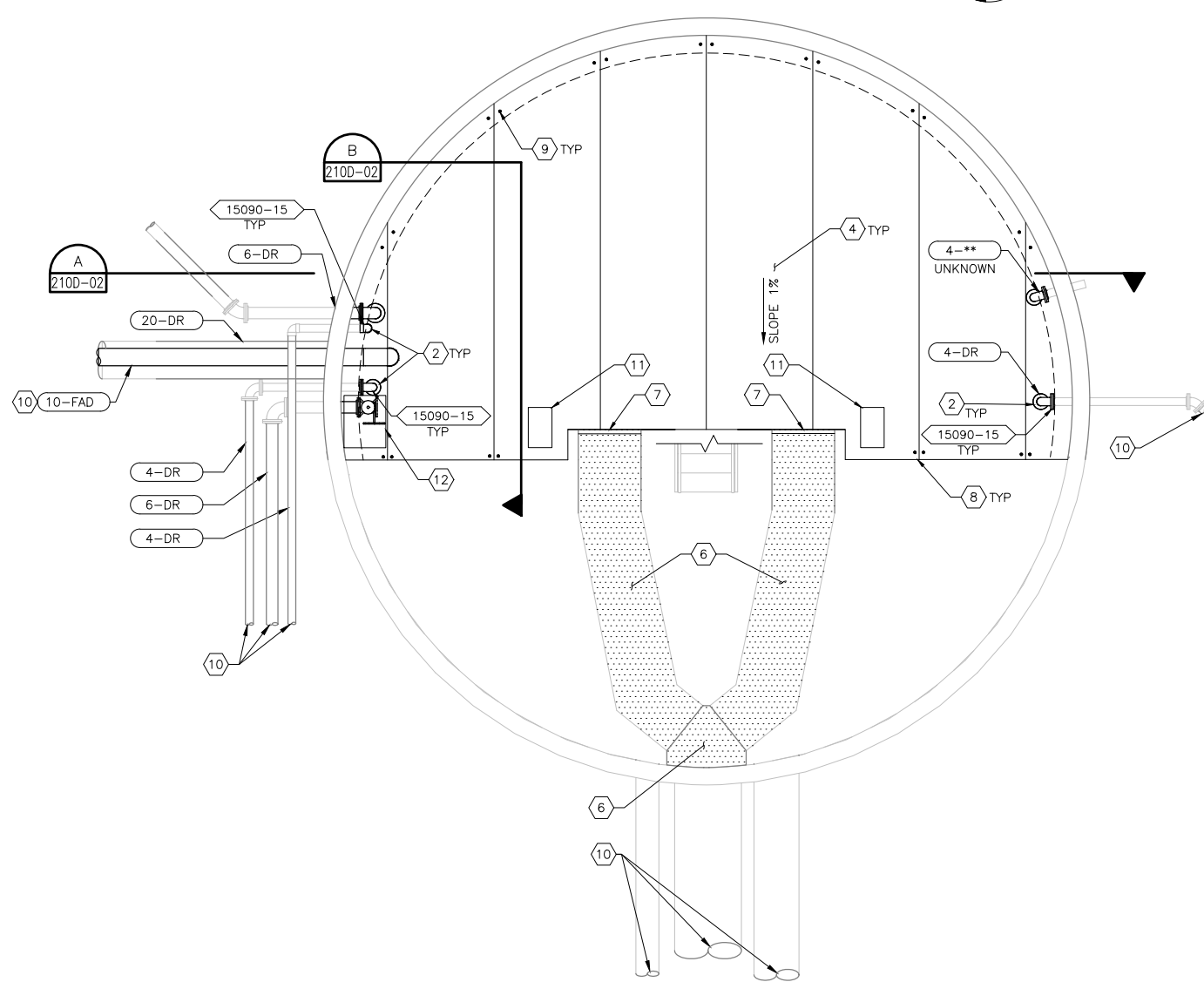
SCREENINGS BUILDING LIGHTING PLAN

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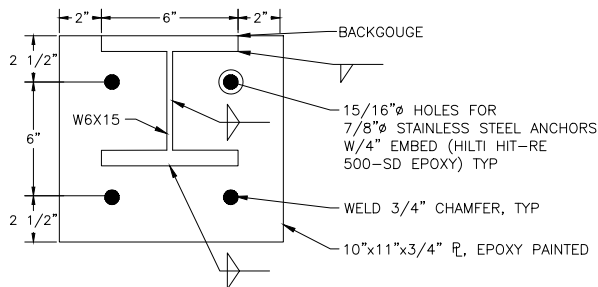
PUMP STATION WET WELL DEMO PLAN

1/4" = 1'-0"



PUMP STATION WET WELL PLAN

1/4" = 1'-0"



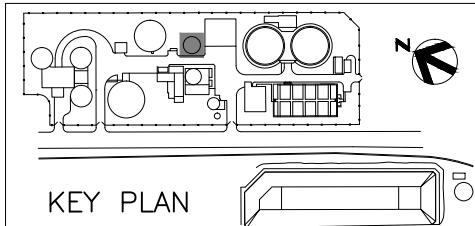
COVER CONNECTION DETAIL

NTS



KEY NOTES:

- 1 THE CONTRACTOR SHALL REMOVE THE EXISTING BAR SCREEN AFTER THE NEW HEADWORKS SCREEN HAS BEEN INSTALLED AND TESTED. THE CONTRACTOR SHALL PROTECT AND RETURN BAR SCREEN TO OWNER AND COVER OPENING WITH GALV GRATING.
- 2 THE CONTRACTOR SHALL RETROFIT AND ATTACH NEW PIPE TO ALL EXISTING INLET PIPING WITHIN THE PLANT PUMP STATION WET WELL AND SHALL EXTEND THE PIPING DOWN THROUGH NEW COVER WITHIN THE EXISTING WET WELL.
- 3 THE CONTRACTOR SHALL DEMOLISH THE EXISTING HANDRAIL ONCE NEW COVER HAS BEEN INSTALLED.
- 4 FABRICATED ALUMINUM COVER AT TOP OF CONCRETE SLAB (WALKWAY). LIVE LOAD SHALL BE 500LBS. INSTALL WITH 1% SLOPE. SEE STRUCTURAL DETAIL 1/210D-01. SEE SPEC SECTION 13221 FOR COVER DESIGN REQUIRED.
- 5 CONTRACTOR TO REPLACE EXISTING VALVE WITH SAME KIND AND TYPE AS EXISTING VALVE.
- 6 CONTRACTOR SHALL INSTALL REMOVABLE RUBBER MATS PER SPECIFICATION.
- 7 FABRICATE AND INSTALL A W6x15 BEAM. THE CONTRACTOR SHALL WELD 3/4" PLATE TO EITHER END OF THE BEAM AND SHALL EMBED 1" STAINLESS STEEL BOLTS TO ANCHOR THE W SECTION IN PLACE. SEE DETAIL 3/-, FIELD VERIFY DIMENSION ACROSS CHANNEL TO PRODUCE TIGHT EVEN FIT. GRIND CONCRETE IF NECESSARY, ONLY WITH ENGINEER APPROVAL.
- 8 ANCHORS SHALL ATTACH ALUMINUM COVER TO CONCRETE WALKWAY. ANCHORS SHALL EMBED INTO THE CONCRETE A MINIMUM OF 4 INCHES. 3/4" STAINLESS STEEL BOLTS SHALL BE USED.
- 9 ANCHORS SHALL ATTACH THE FABRICATED ALUMINUM COVER TO THE STRUCTURAL ANGLE. 3/4" STAINLESS STEEL BOLTS SHALL BE USED.
- 10 SEE SHEET 000C-05 AND 420D-01 FOR CONTINUATION.
- 11 ACCESS HATCH 16"x24" FOR ULTRASONIC TRANSDUCER ACCESS.
- 12 24"Wx30"Dx24"H ELEVATED ACCESS HATCH FOR EXISTING 2'x2' LADDER AND RV REFUSE DUMP VALVE, V-21001.
- 13 REMOVE HANDRAIL AND TOEKICK, AND COVER OPENING WITH REMOVABLE GRATING.



KEY PLAN



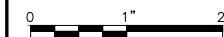
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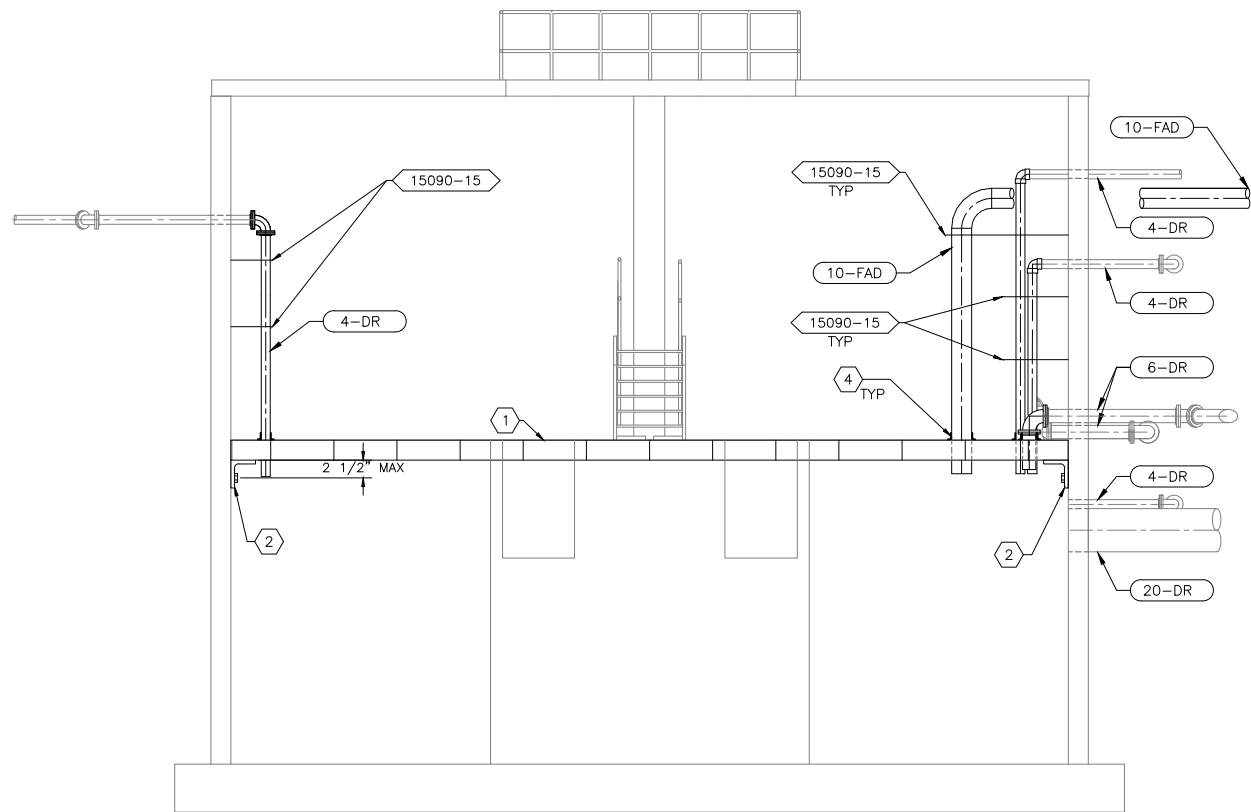
PUMP STATION WET WELL  
PLANS AND DETAILS



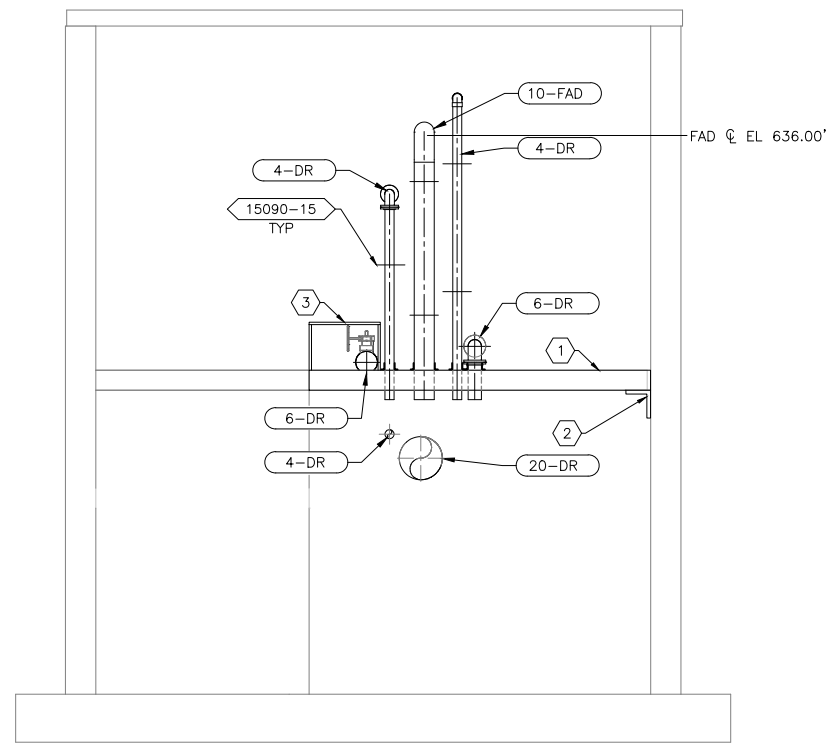
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SHEET	210D-01
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PUMP STATION WET WELL SECTION  
1/4" = 1'-0"  
A  
210D-01



PUMP STATION WET WELL SECTION  
1/4" = 1'-0"  
B  
210D-01

KEY NOTES:

- 1 FABRICATED ALUMINUM COVER. BOTTOM OF COVER AT TOP OF CONCRETE SLAB (WALKWAY). LIVE LOAD SHALL BE 500LBS. LIVE LOAD SHALL BE 500LBS.
- 2 6"x6"x3/4" STRUCTURAL ANGLE. STAINLESS STEEL ANCHORS SHALL EMBED 6" INTO CONCRETE WALL. BOLTS SHALL BE 1/4"Ø, SPACED 2' O.C. SEE SPECIFICATIONS.
- 3 ELEVATED HATCH FOR ACCESS TO RUNG LADDER AND RV REFUSE DUMP VALVE, V-21001.
- 4 PENETRATION THROUGH ALUMINUM TANK COVER, FLASHED AND SEALED PER SPECIFICATION SECTION 13221, TYPICAL ALL PENETRATIONS.



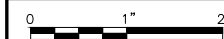
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	D. HARMON
DRAWN	E. SJOBERG
CHECKED	
PROJECT NUMBER	171097

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SIGNATURE HAS BEEN  
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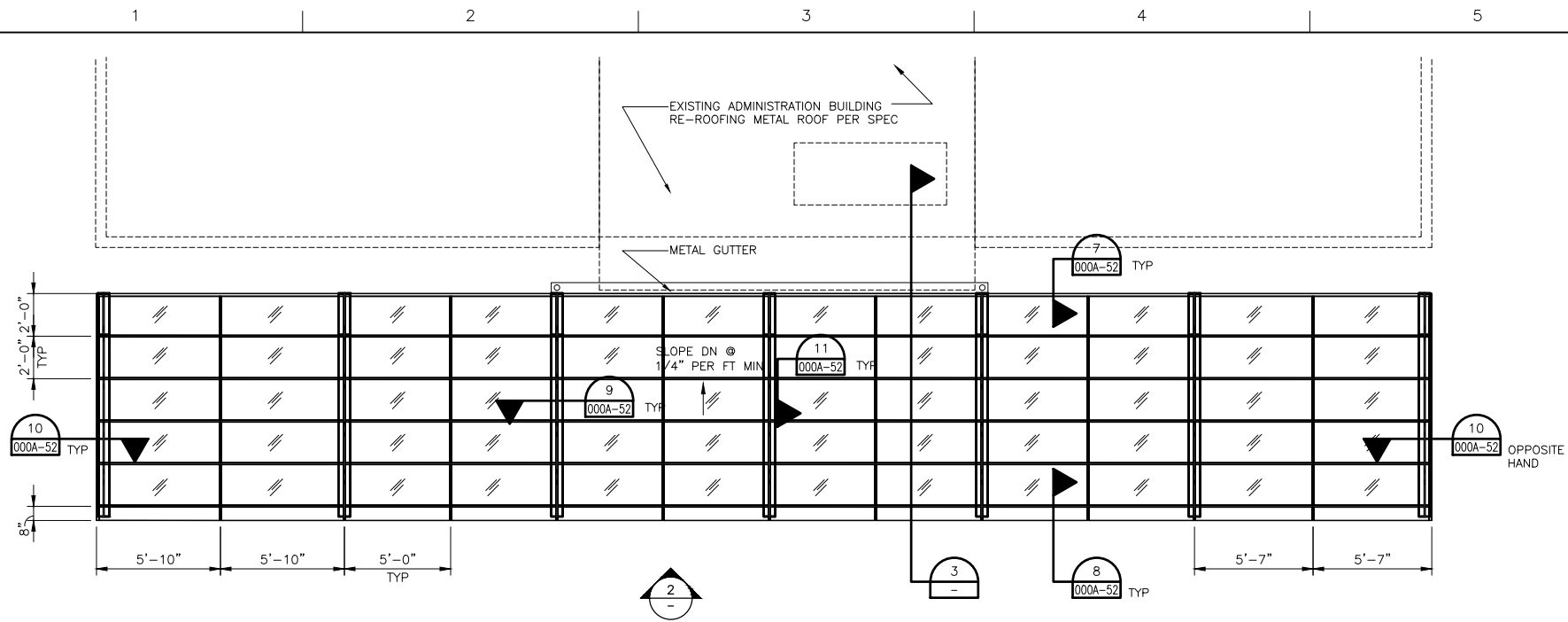
PUMP STATION WET WELL  
SECTION AND DETAILS



FILENAME	210D-02.dwg
SCALE	1/4"=1'-0"

SHEET
210D-02

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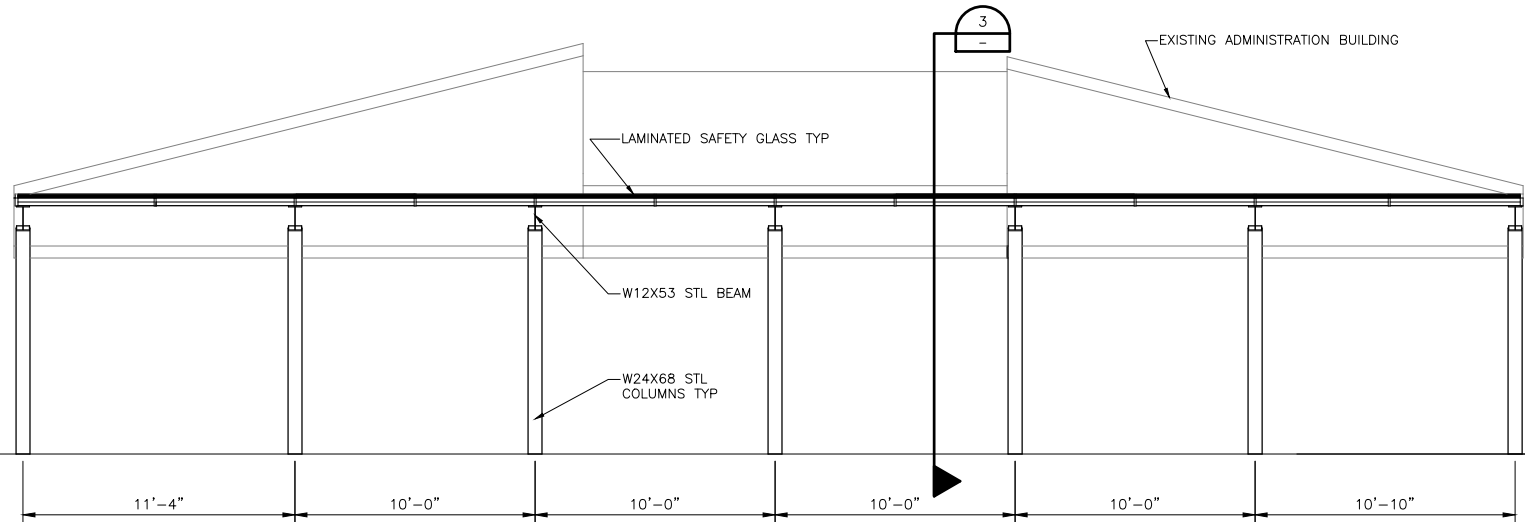


NEW CANOPY @ EXISTING ADMINISTRATION BUILDING

SCALE: 1/4" = 1'-0"

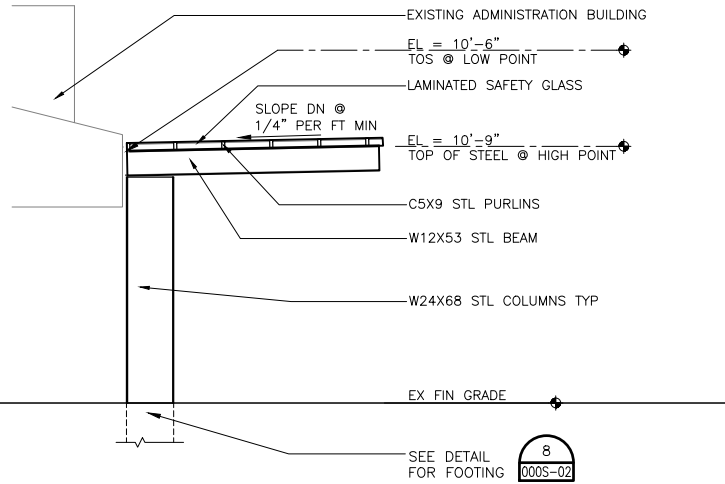


SEE DETAIL FOR STEEL CONNECTIONS



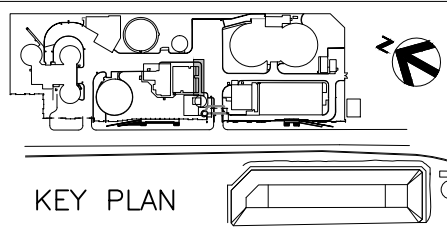
CANOPY ELEVATION

SCALE: 1/4" = 1'-0"



CANOPY SECTION

SCALE: 1/4" = 1'-0"



KEY PLAN



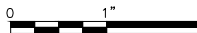
ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	D. HOGAN
DRAWN	J. ZHAO
CHECKED	
PROJECT NUMBER	171097

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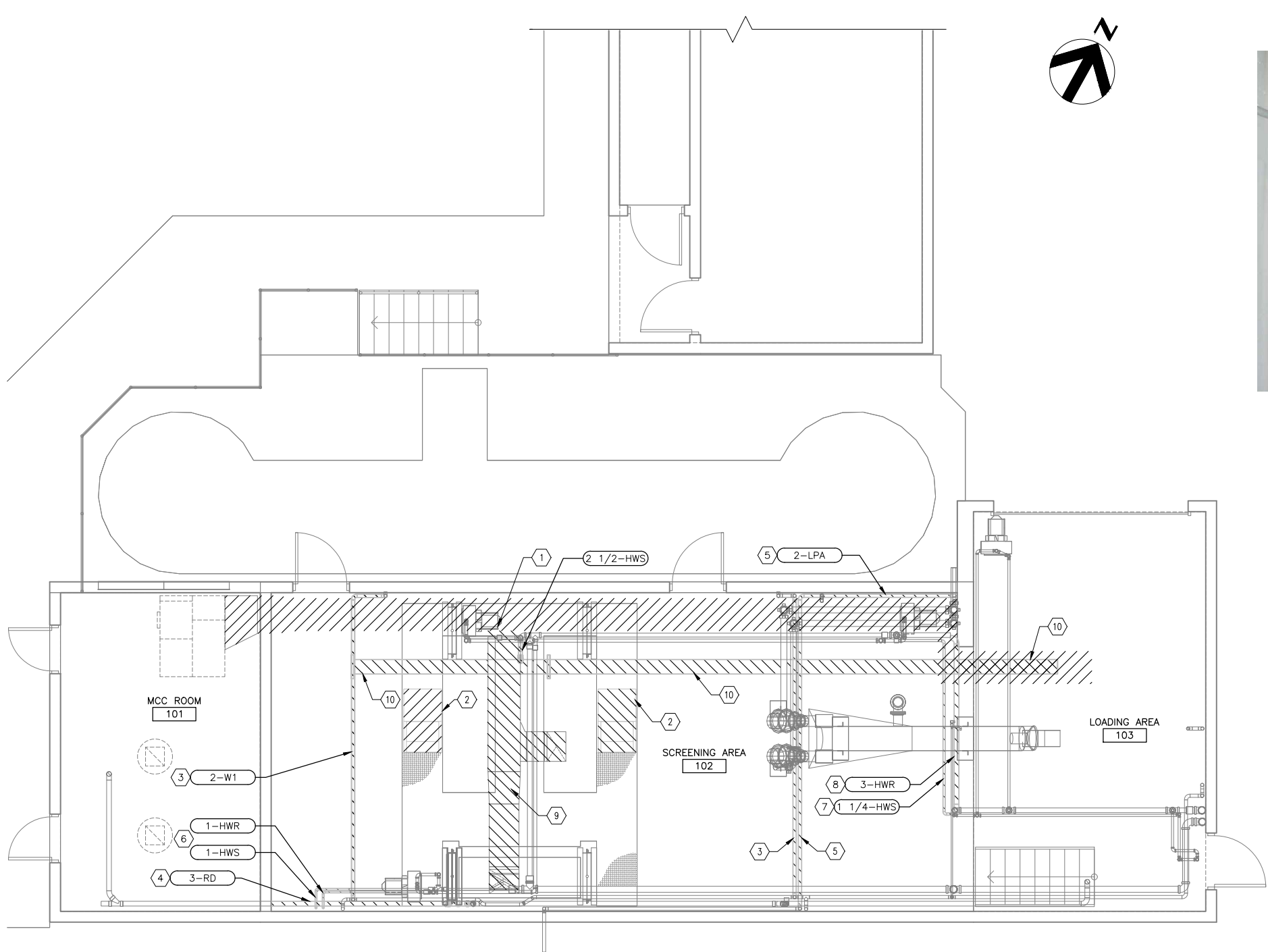
ADMIN BUILDING CANOPY PLAN & ELEVATION



FILENAME	220A-01.dwg
SCALE	1/4"=1'-0"

SHEET  
220A-01

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PLAN VIEW  
1/4" = 1'-0"

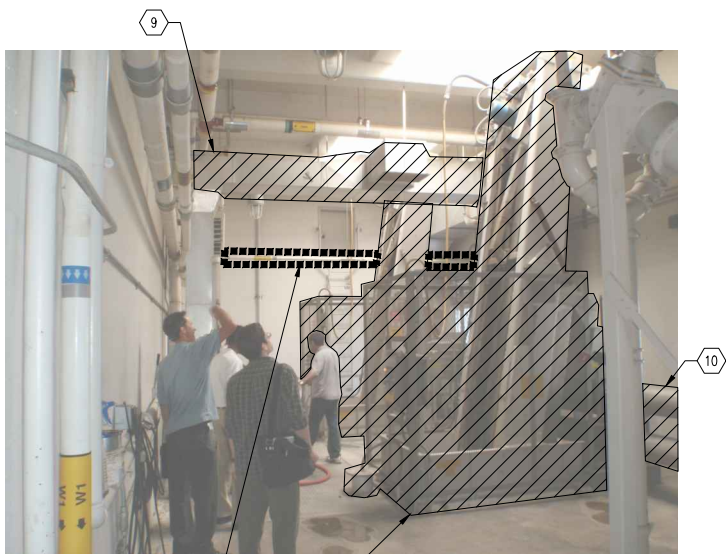


PHOTO  
NTS

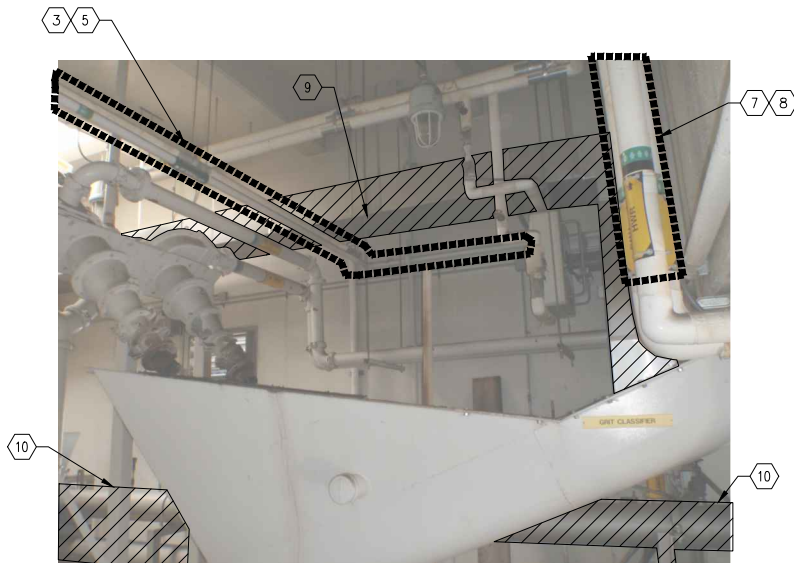


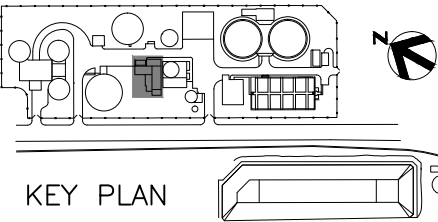
PHOTO  
NTS

GENERAL NOTES:

1. THE FAD MANUFACTURER IS RESPONSIBLE FOR LOCATING AND DESIGNING THE FAD & HVAC DUCT SUPPORTS; INCLUDING THE STRUCTURAL INTEGRITY OF THE FAD & HVAC. THE DESIGN SHALL BE DONE BY A LICENSED ENGINEER IN THE STATE OF WASHINGTON.

KEY NOTES:

- 1 THE CONTRACTOR SHALL INSERT A TEE AND A NINETY DEGREE TRANSITION AND SHALL RAISE THE EXISTING DUCTING (24x20) ABOVE THE NEW FAD DUCTING. REMOVE AND RELOCATE EXISTING 24x20 DUCT TO BOD ELEVATION 19'-9" AFF. SEE 310M-01.
- 2 REMOVE EXISTING INFLUENT SCREENS AND APPURTENANT ITEMS.
- 3 RELOCATE EXISTING 2-W1 ABOUT NEW FOUL AIR SYSTEM. SEE 310M-01 FOR NEW LOCATION.
- 4 RELOCATE EXISTING 3-RD ABOUT NEW FOUL AIR SYSTEM. SEE 310M-01 FOR NEW LOCATION.
- 5 RELOCATE EXISTING 2-LPA ABOUT NEW FOUL AIR SYSTEM. SEE 310M-01 FOR NEW LOCATION.
- 6 RELOCATE EXISTING 1-HWS & 1-HWR ABOUT NEW FOUL AIR SYSTEM. SEE 310M-01 FOR NEW LOCATION.
- 7 RELOCATE EXISTING 1 1/4-HWS ABOUT TO INSTALL NEW FOUL AIR SYSTEM. SEE 310M-01 FOR NEW LOCATION.
- 8 RELOCATE EXISTING 3-HWR ABOUT NEW FOUL AIR SYSTEM. SEE 310M-01 FOR NEW LOCATION.
- 9 REMOVE EXISTING DUCTWORK.
- 10 REMOVE EXISTING SCREENINGS AUGERS AND SUPPORTS.



KEY PLAN



ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	J. MANION
DRAWN	H. FANCHER
CHECKED	
PROJECT NUMBER	171097

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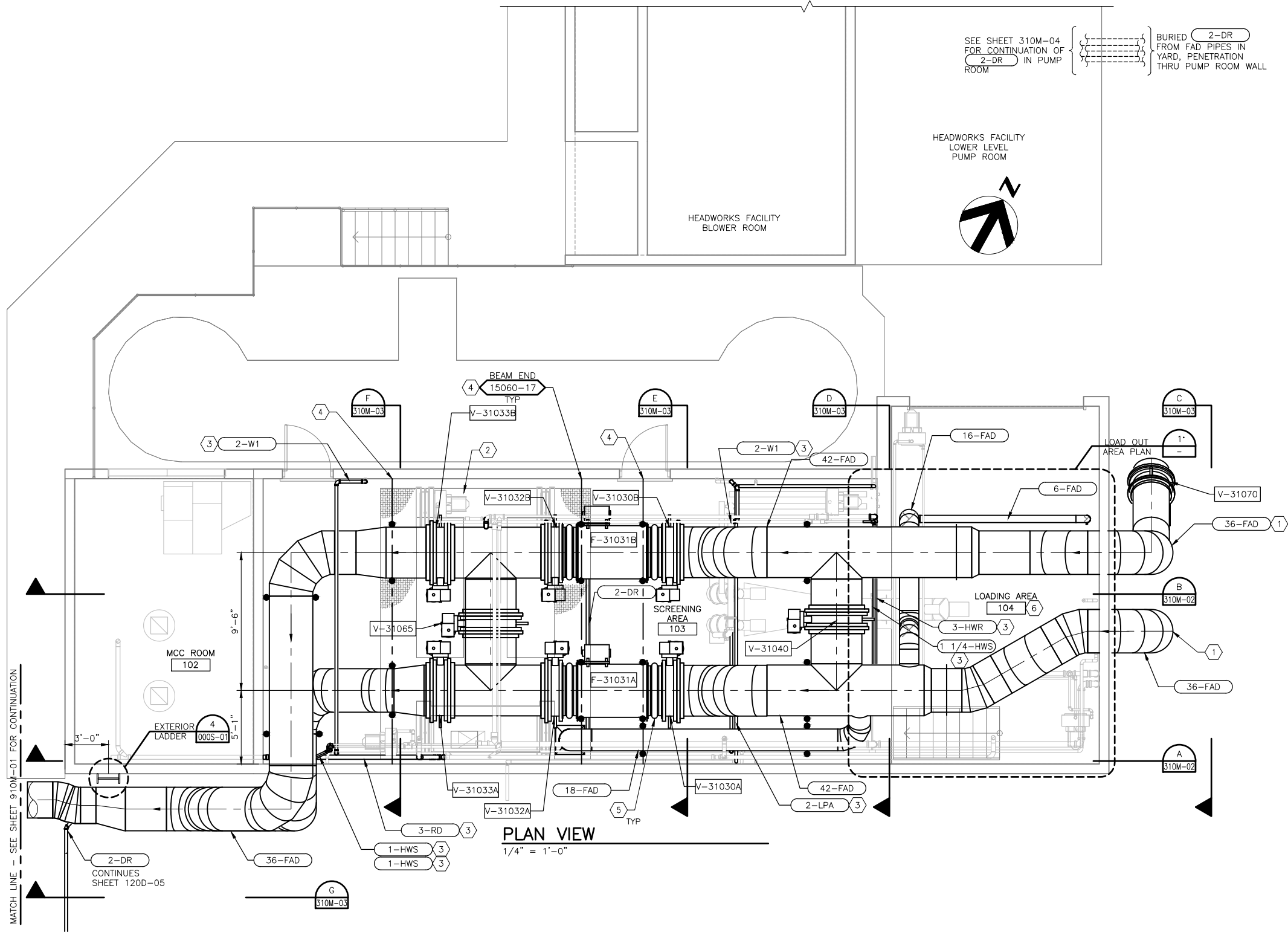
BIOFILTER FAN BUILDING  
DEMOLITION PLAN



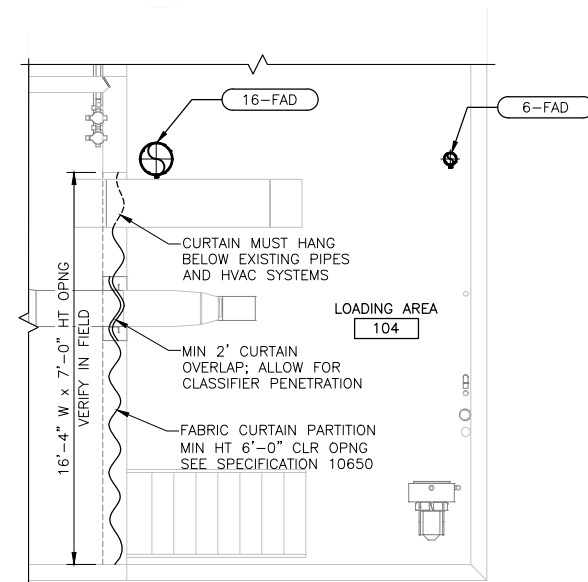
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SCALE	AS NOTED

SHEET	310X-01
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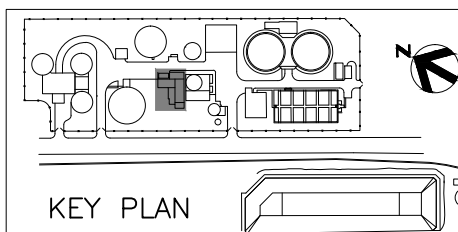
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- GENERAL NOTES:**
- DUCT, FAN, DAMPER AND HOOD SUPPORTS:  
PROVIDE SUPPORTS AS SPECIFIED FOR PIPES. USE THE FOLLOWING STANDARD DETAILS WHERE APPROPRIATE:  
15060-19 DUCT IN EXISTING WALL  
15090-05 MEDIUM PIPE SUPPORT - WALL  
15090-06 HEAVY PIPE SUPPORT - WALL  
15090-07 HEAVY DUTY PIPE SUPPORT - WALL  
15090-08 SURFACE MOUNT MODULAR STRUT  
15090-17 TRAPEZE HANGER  
15090-95 VERTICAL DUCT SUPPORT  
15090-96 ROOF DUCT SUPPORT
  - MODULAR FRAMING SYSTEMS AS SPECIFIED MAY ALSO BE PROVIDED, WHERE SPECIFIC DUCT SUPPORTS ARE SHOWN OR NOTED, PROVIDE AS SHOWN OR NOTED. PROVIDE SUPPORTS TO ALLOW EASY ACCESS TO COMPONENTS FOR REMOVAL AND MAINTENANCE. SEE DETAIL 311/000S-05 AND SPECIFICATION SECTION 5500 FOR ADHESIVE ANCHOR DETAILS AND ALLOWABLE LOADS.
  - THE FAD MANUFACTURER IS RESPONSIBLE FOR LOCATING AND DESIGNING THE FAD & HVAC DUCT SUPPORTS; INCLUDING THE STRUCTURAL INTEGRITY OF THE FAD & HVAC. THE DESIGN SHALL BE DONE BY A LICENSED ENGINEER IN THE STATE OF WASHINGTON.
- KEY NOTES:**
- SEE 000C-05 YARD PIPING FOR CONTINUATION.
  - THE CONTRACTOR SHALL INSERT TEE AND SHALL RAISE THE EXISTING HVAC DUCTING ABOVE THE NEW FAD DUCTING.
  - RETROFIT OF EXISTING PIPING SEE SHEET 310X-01.
  - DUCT SUPPORT BEAMS. SEE SECTION ON 310M-02 FOR SIZE AND LOCATION.
  - FLEXIBLE COUPLING.
  - LOADING AREA ROOF REMOVED FOR CLARITY.



**LOAD OUT AREA PLAN**  
1/4" = 1'-0"



**KEY PLAN**



ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	HARMON/MANION
DRAWN	H. FANCHER
CHECKED	
PROJECT NUMBER	171097

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**BIOFILTER FAN BUILDING LOWER AND UPPER PLANS**

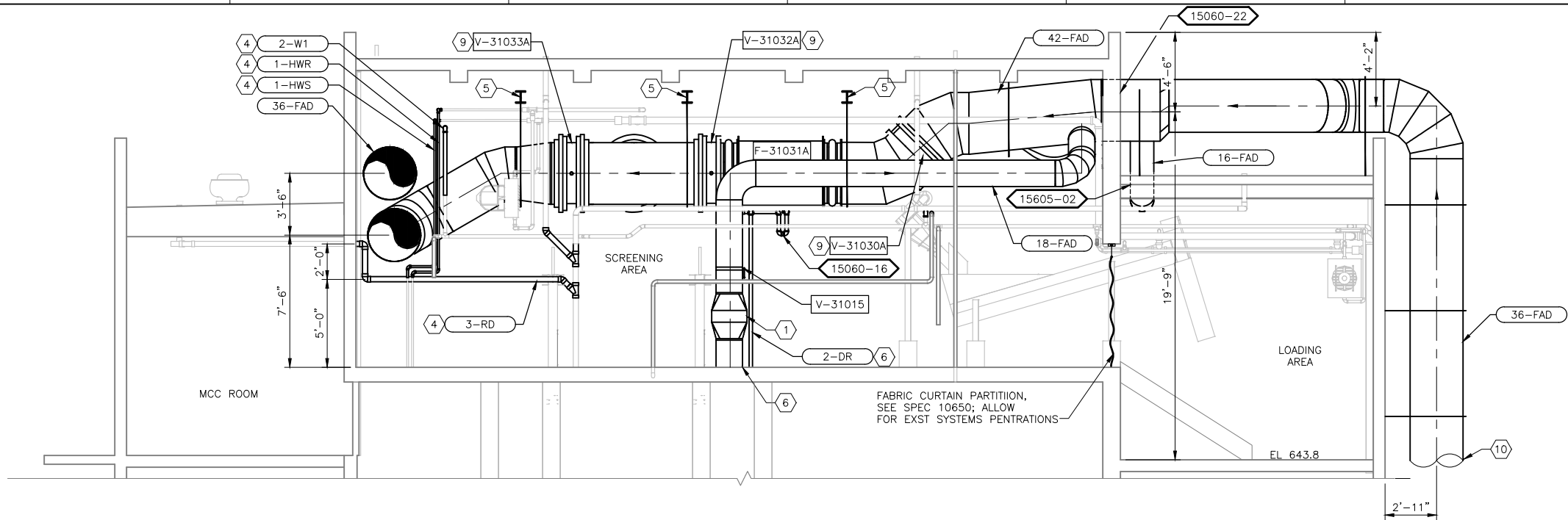
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FILENAME 310M-01.dwg SHEET 310M-01

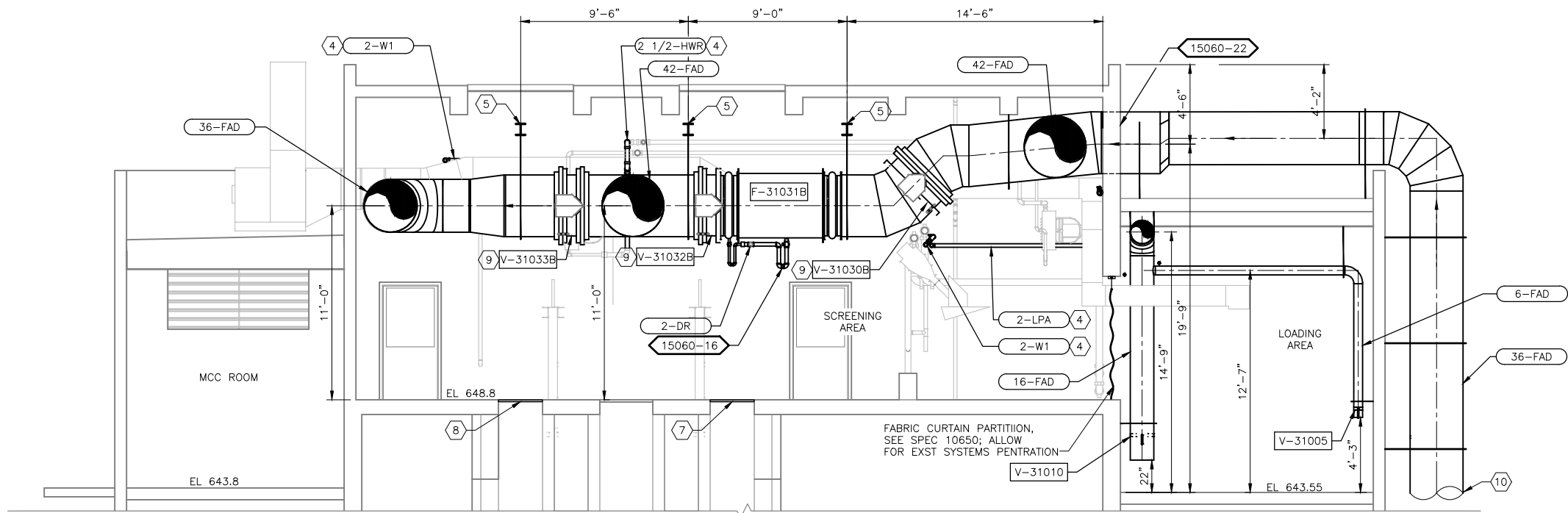
SCALE 1/4" = 1'-0"



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SECTION A  
1/4" = 1'-0"



SECTION B  
1/4" = 1'-0"

- GENERAL NOTES:
- DUCT, FAN, DAMPER AND HOOD SUPPORTS:  
PROVIDE SUPPORTS AS SPECIFIED FOR PIPES. USE THE FOLLOWING STANDARD DETAILS WHERE APPROPRIATE:  
15060-19 DUCT IN EXISTING WALL  
15090-05 MEDIUM PIPE SUPPORT - WALL  
15090-06 HEAVY PIPE SUPPORT - WALL  
15090-07 HEAVY DUTY PIPE SUPPORT - WALL  
15090-08 SURFACE MOUNT MODULAR STRUT  
15090-17 TRAPEZE HANGER  
15090-95 VERTICAL DUCT SUPPORT  
15090-96 ROOF DUCT SUPPORT
  - MODULAR FRAMING SYSTEMS AS SPECIFIED MAY ALSO BE PROVIDED. WHERE SPECIFIC DUCT SUPPORTS ARE SHOWN OR NOTED, PROVIDE AS SHOWN OR NOTED. PROVIDE SUPPORTS TO ALLOW EASY ACCESS TO COMPONENTS FOR REMOVAL AND MAINTENANCE. SEE DETAIL 311/005-05 AND SPECIFICATION SECTION 5500 FOR ADHESIVE ANCHOR DETAILS AND ALLOWABLE LOADS.
  - THE FAD MANUFACTURE IS RESPONSIBLE FOR LOCATING AND DESIGNING THE FAD & HVAC DUCT SUPPORTS; INCLUDING THE STRUCTURAL INTEGRITY OF THE FAD & HVAC. THE DESIGN SHALL BE DONE BY A LICENSED ENGINEER IN THE STATE OF WASHINGTON.

- KEY NOTES:
- FLT - GREASE FILTER.
  - NOT USED
  - NOT USED
  - RETROFIT OF EXISTING PIPING SEE SHEET 310X-01.
  - W6x20 DUCT SUPPORT BEAM. BOTTOM OF BEAM TO BE 15'-0" OFF FINISH FLOOR. SEE STANDARD DETAIL 15090-97 FOR BEAM END CONNECTION.
  - ROUTE THROUGH FLOOR PLATE INTO EXISTING CHANNEL WITH SST SCREEN.
  - 1/4" ALUMINUM CHECKERED PLATE TO COVER OPENING FOLLOWING EQUIPMENT REMOVAL, MATCH EXISTING MOUNTING.
  - 1/4" ALUMINUM CHECKERED PLATE TO COVER OPENING FOLLOWING EQUIPMENT REMOVAL, MATCH EXISTING MOUNTING.
  - OPERATOR WITH CHAIN.
  - SEE SITE PIPING PLAN SHEET 000C-06 FOR CONTINUATION AND CENTERLINE ELEVATIONS.



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	HARMON/MANION
DRAWN	H. FANCHER
CHECKED	
PROJECT NUMBER	171097

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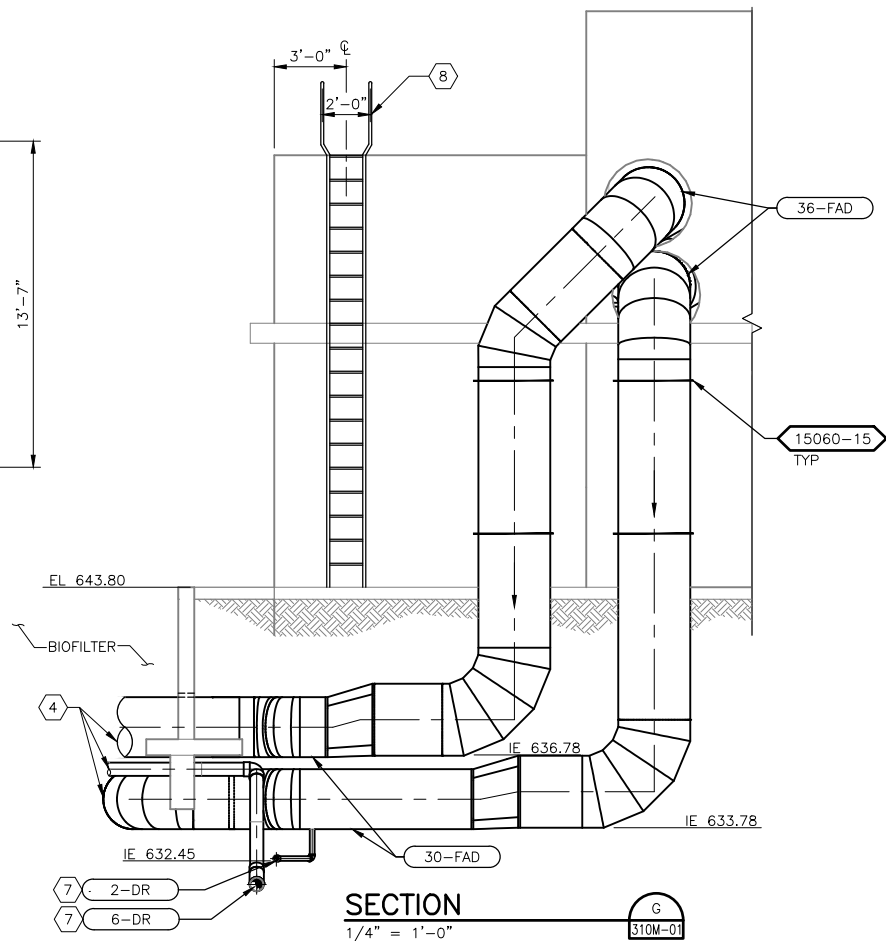
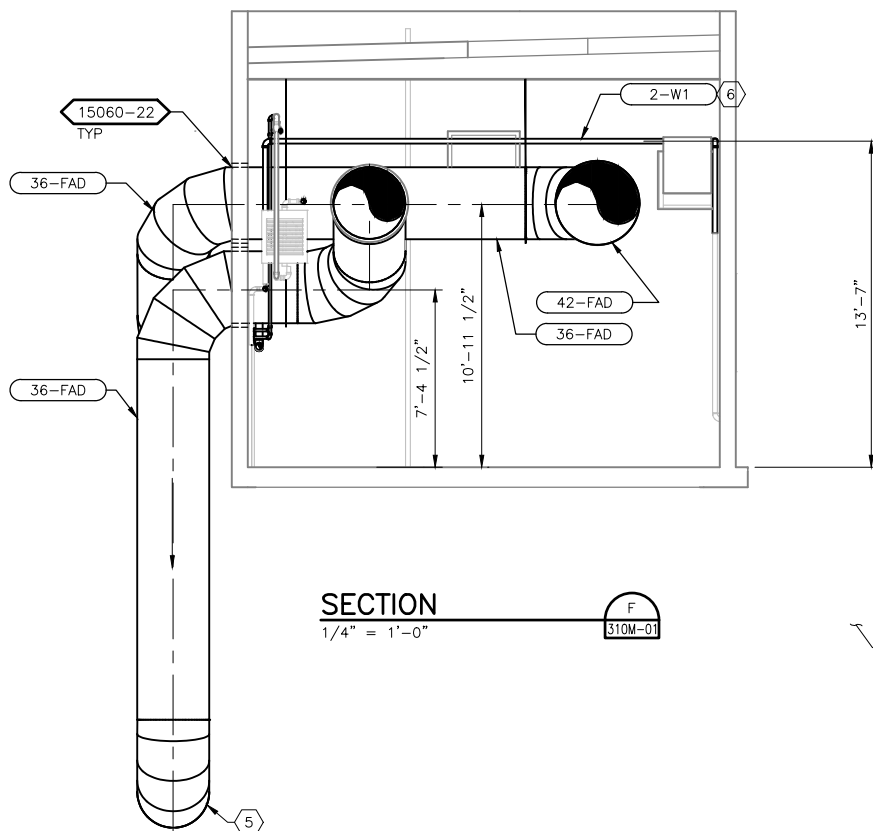
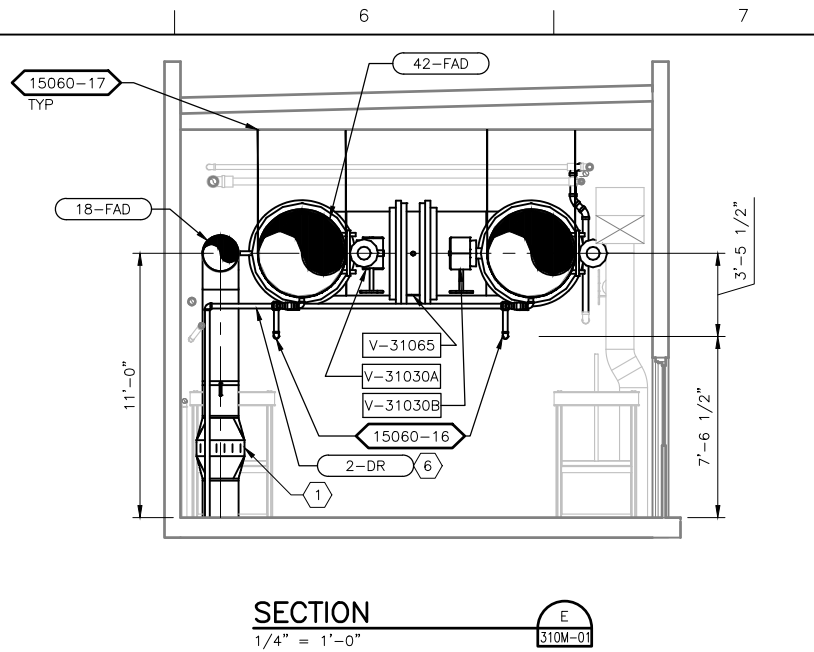
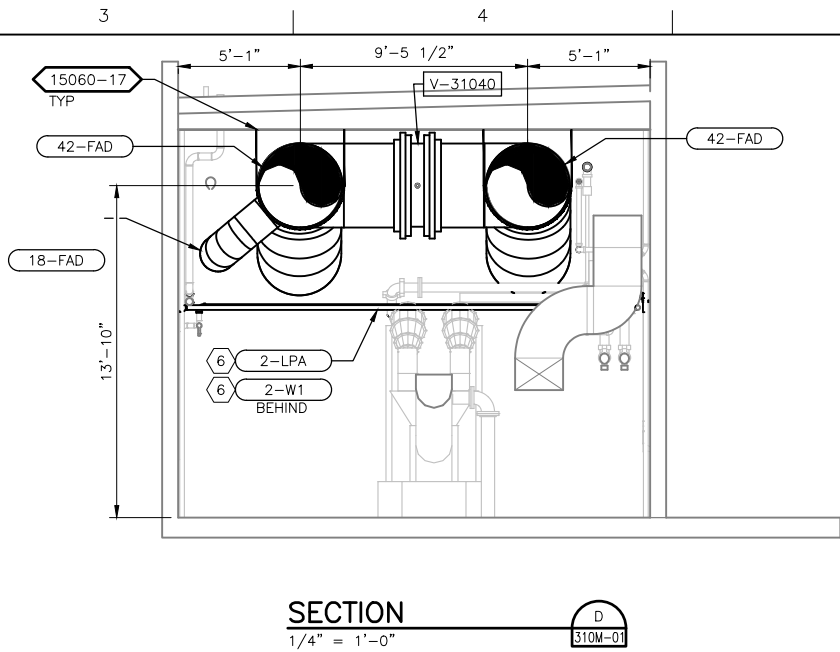
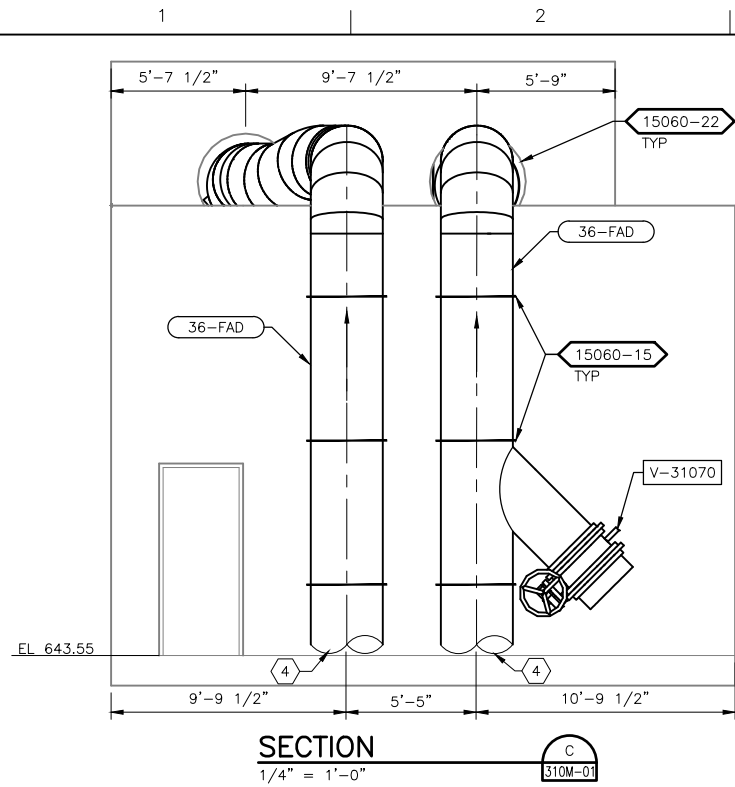
BIOFILTER FAN BUILDING  
SECTIONS I



FILENAME	310M-02.dwg
SCALE	AS NOTED

SHEET  
**310M-02**

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- GENERAL NOTES:
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15090-05 MEDIUM PIPE SUPPORT - WALL  
15090-06 HEAVY PIPE SUPPORT - WALL  
15090-07 HEAVY DUTY PIPE SUPPORT - WALL  
15090-08 SURFACE MOUNT MODULAR STRUT  
15090-17 TRAPEZE HANGER  
15090-95 VERTICAL DUCT SUPPORT  
15090-96 ROOF DUCT SUPPORT
  - MODULAR FRAMING SYSTEMS AS SPECIFIED MAY ALSO BE PROVIDED, WHERE SPECIFIC DUCT SUPPORTS ARE SHOWN OR NOTED, PROVIDE AS SHOWN OR NOTED. PROVIDE SUPPORTS TO ALLOW EASY ACCESS TO COMPONENTS FOR REMOVAL AND MAINTENANCE. SEE DETAIL 311/000S-05 AND SPECIFICATION SECTION 5500 FOR ADHESIVE ANCHOR DETAILS AND ALLOWABLE LOADS.
  - THE FAD MANUFACTURE IS RESPONSIBLE FOR LOCATING AND DESIGNING THE FAD & HVAC DUCT SUPPORTS; INCLUDING THE STRUCTURAL INTEGRITY OF THE FAD & HVAC. THE DESIGN SHALL BE DONE BY A LICENSED ENGINEER IN THE STATE OF WASHINGTON.

- KEY NOTES:
- FLT - GREASE FILTER.
  - NOT USED
  - NOT USED
  - SEE 000C-05 AND 000C-06 YARD PIPING FOR CONTINUATION.
  - SEE 910M-01 FOR CONTINUATION.
  - RETROFIT OF EXISTING PIPING SEE SHEET 310X-01.
  - DRAINS CONTINUE TO NEW SCREENINGS BUILDING, SEE SHEET 120D-05.
  - SEE SHEET 000S-02 FOR DETAIL.



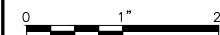
ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	HARMON/MANION
DRAWN	H. FANCHER
CHECKED	
PROJECT NUMBER	171097

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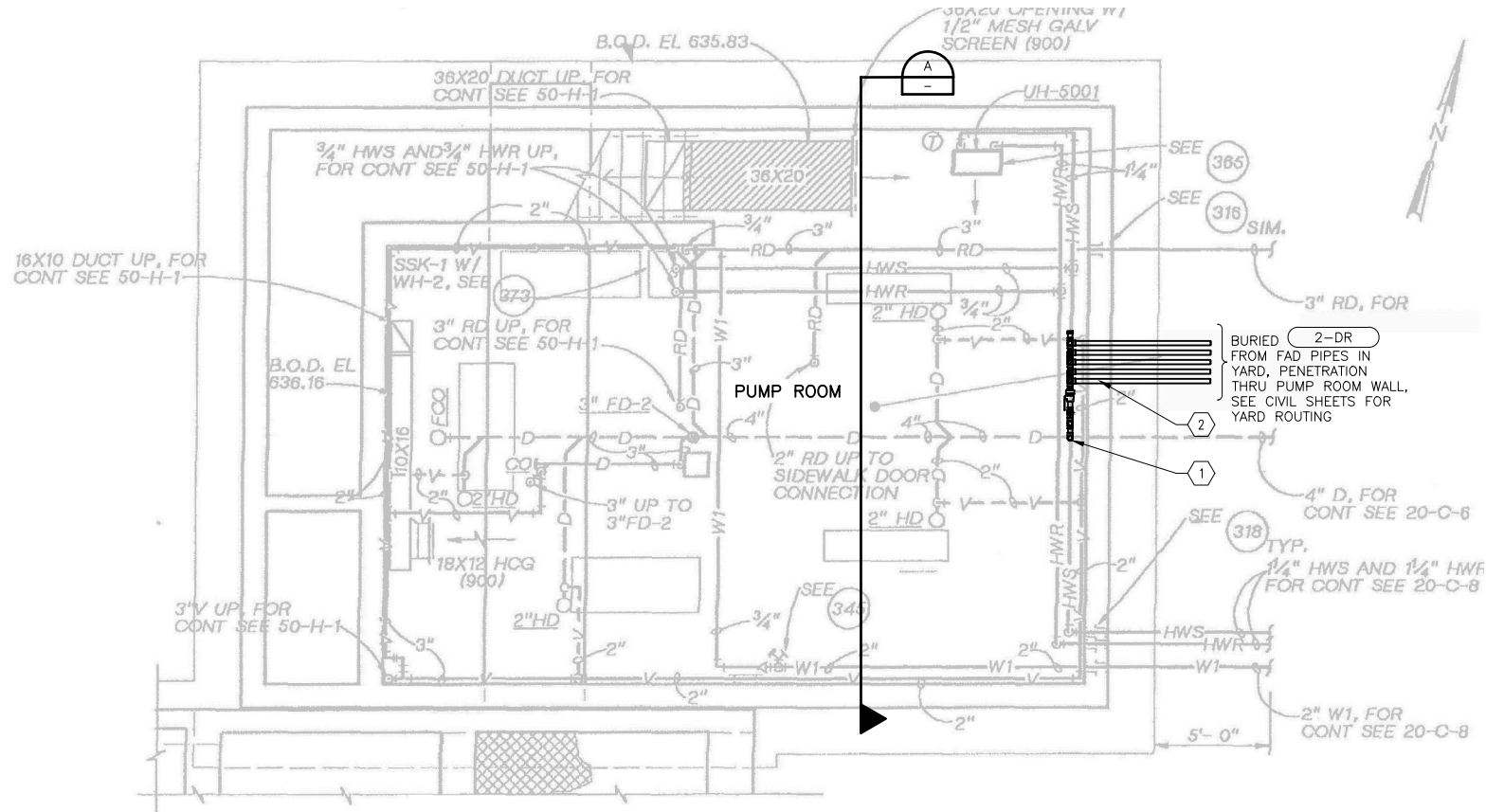
## BIOFILTER FAN BUILDING SECTIONS II



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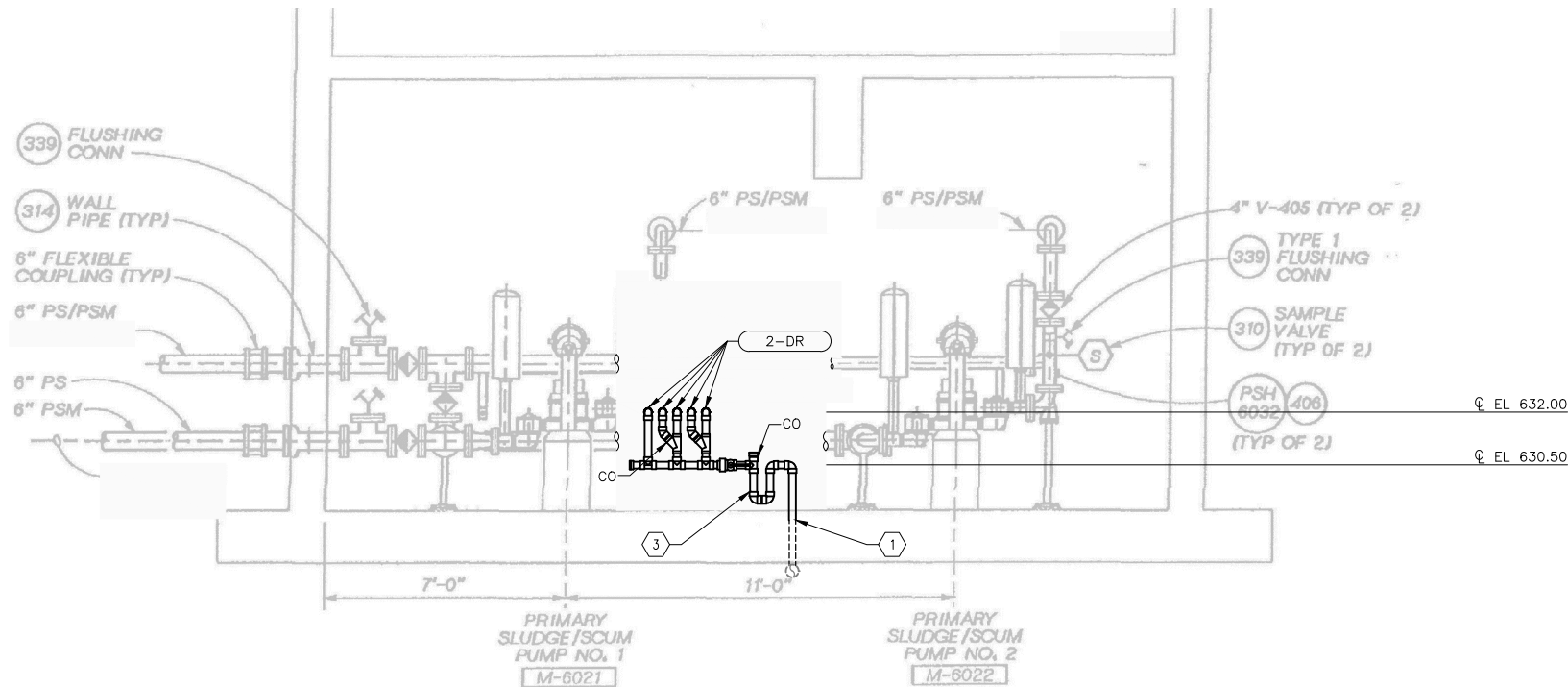
SHEET	310M-03
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PLAN

1/4" = 1'-0"



SECTION

3/8" = 1'-0"

GENERAL NOTES:

1. AS BUILT INFORMATION SHOWN IS FROM 1990 PLAN SETS. EXISTING PIPE LOCATIONS WILL NEED TO BE FIELD VERIFIED BEFORE CONSTRUCTION AND/OR DEMOLITION. 1990 PLAN SET ELEVATION HAS BEEN ADJUSTED +3.8' FOR THIS PLAN SET. SEE CIVIL SHEETS FOR SITE ELEVATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ENGINEER ABOUT FIELD CONFLICTS.

KEY NOTES:

- 1 SAWCUT AND CHIP AWAY CONCRETE TO CONNECT CONDENSATE DRAIN TO EXISTING 4" DRAIN UNDER SLAB.
- 2 WALL PIPE, SEE STANDARD DETAIL 15060-22 TYPICAL FOR EACH 2" DRAIN PENETRATION THRU WALL.
- 3 P-TRAP, SEE STANDARD DETAIL 15060-16.



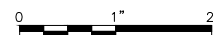
ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	D. HARMON
DRAWN	H. FANCHER
CHECKED	
PROJECT NUMBER	171097

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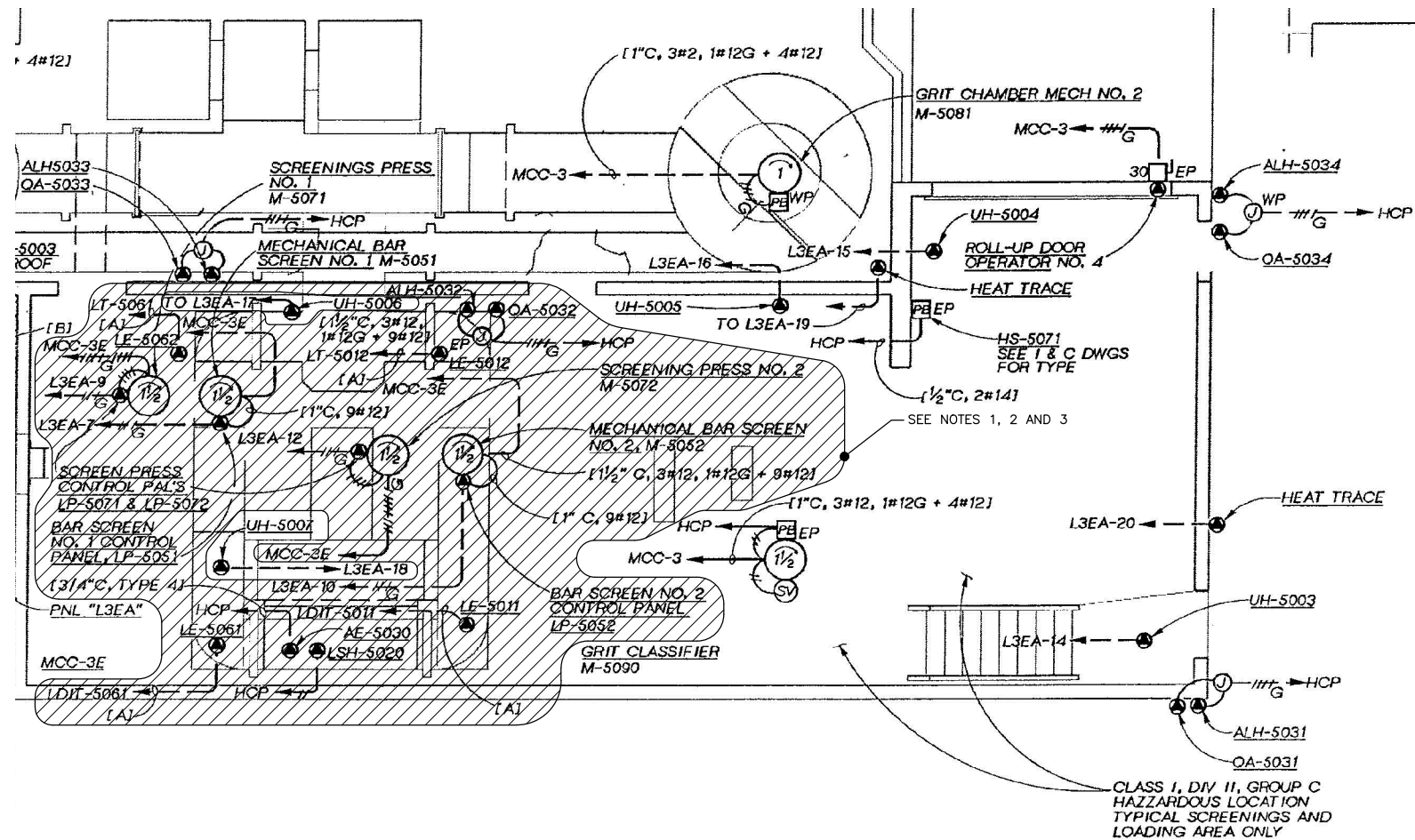
BIOFILTER FAN BUILDING  
SLUDGE PUMP ROOM  
PLAN AND SECTION



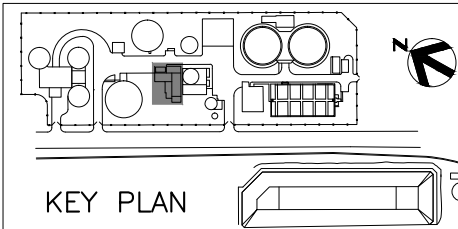
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SCALE	AS NOTED

SHEET  
**310M-04**

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- NOTES:
1. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO DISCONNECTION AND REMOVAL OF ANY ELECTRICAL EQUIPMENT, INCLUDING POWER, SIGNAL, CONTROL WIRING, RACEWAY ASSOCIATED WITH BAR SCREENS AND SCREEN PRESSES.
  2. REMOVE EQUIPMENT INSIDE DASHED LINE AREA AS PER CONTRACT DOCUMENTS
  3. PROTECT AND MAINTAIN UNIT HEATERS UH-5006 AND UH-5007 AND ASSOCIATED RACEWAY AND WIRING TO REMAIN.
  4. FOR EXISTING CONDITIONS REFER TO RECORD DRAWINGS:  
- 1992 DWG E-4, E-7, E-8 FOR POWER, LIGHTING AND CONTROL PLANS, RESPECTIVELY



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	I. RINCON
DRAWN	L. KELLER
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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EXISTING HEADWORKS BUILDING  
POWER AND CONTROL  
DEMOLITION PLAN



FILENAME	310EX-01.dwg
SCALE	NONE

SHEET  
310EX-01

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1

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3

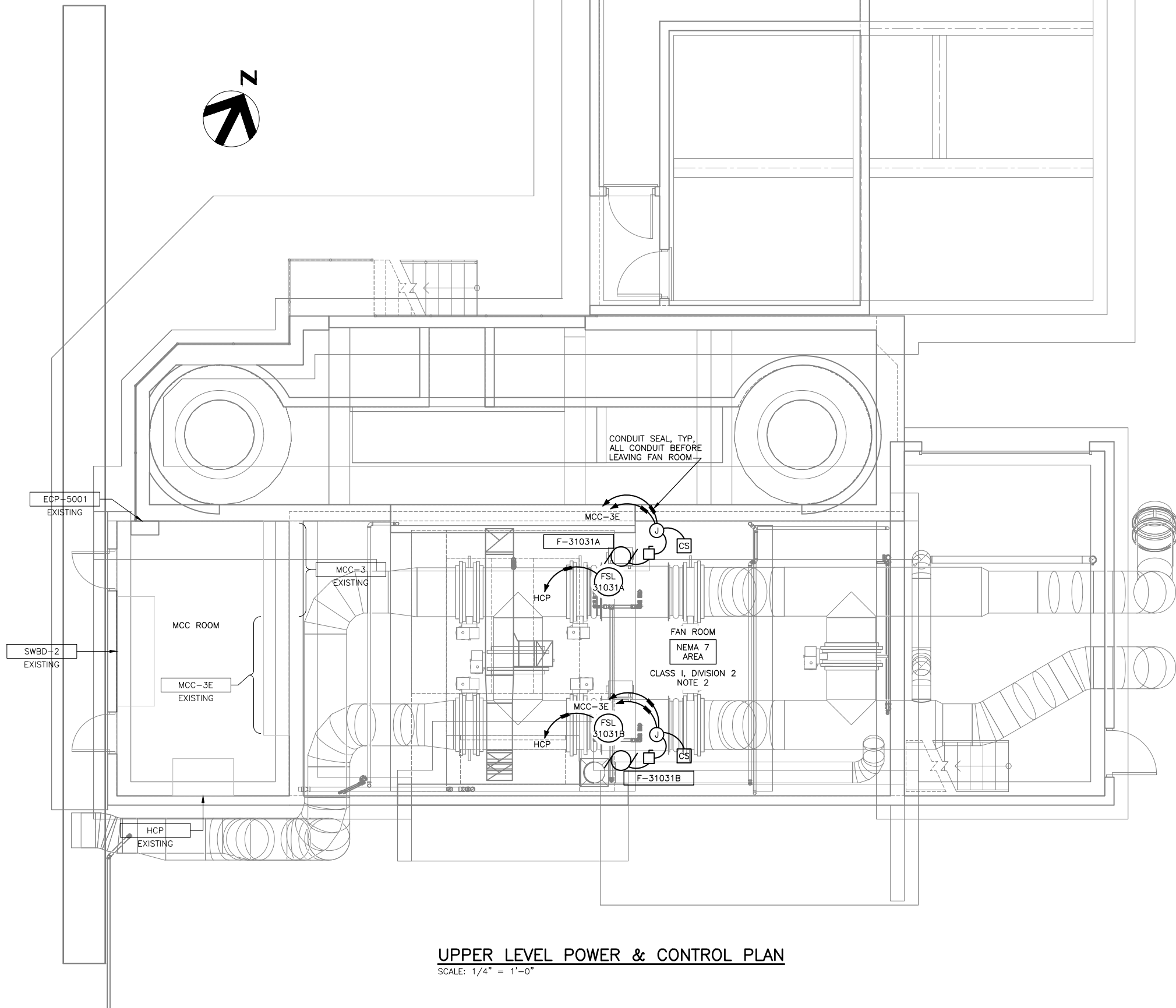
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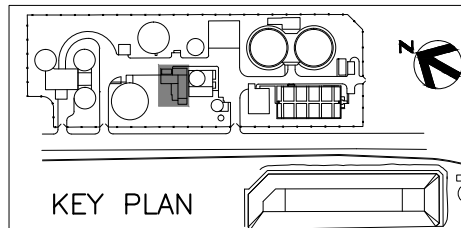
8



UPPER LEVEL POWER & CONTROL PLAN  
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

- REFER TO RECORD DRAWINGS FOR EXISTING CONDITIONS:
  - 1992 DWG E-4, E-7, E-8 FOR POWER, LIGHTING AND CONTROL PLANS, AND SERIES 300 FOR INSTRUMENTATION AND CONTROLS.
- FAN ROOM (OLD SCREENINGS ROOM) NEC-AREA ELECTRICAL CLASSIFICATION IS CLASS 1, DIVISION 2 AS EXISTING GRIT CLASSIFIER WILL STAY IN SERVICE. ALSO AS PER NFPA 820, TABLE 5.2, ODOR-CONTROL SYSTEM AREAS WITHIN 3 FEET OF LEAKAGE SOURCES SUCH AS FANS, DAMPERS, FLEXIBLE CONNECTIONS, PRESSURIZED UN-WELDED DUCTWORK, AND ODOR-CONTROL VESSELS ARE CLASSIFIED AS CLASS 1, DIVISION 2.



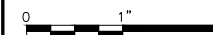
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	I. RINCON
DRAWN	P. MCCLINTOCK
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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FAN BUILDING  
UPPER LEVEL  
POWER AND CONTROL PLAN

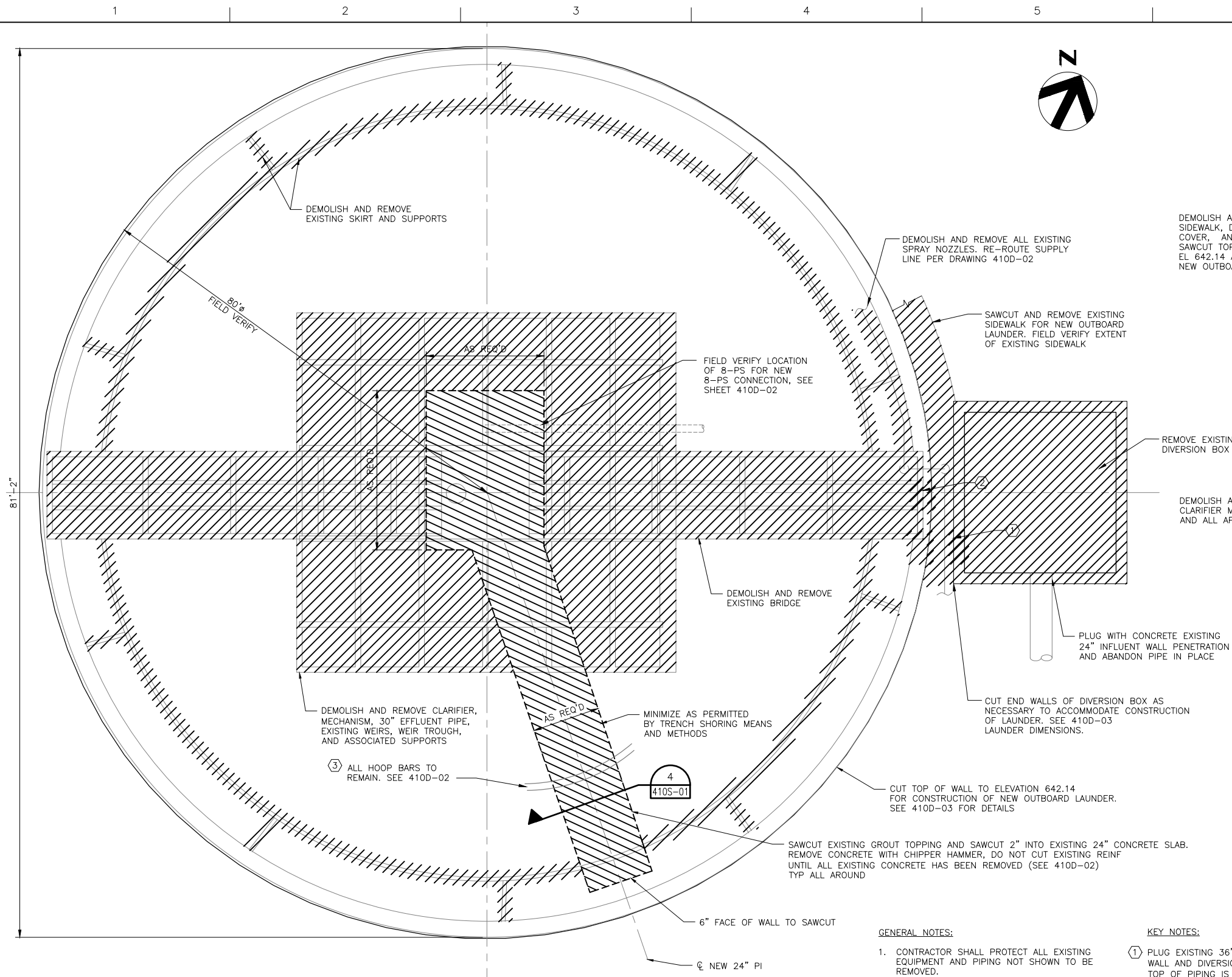


FILENAME	310E-01.dwg
SCALE	1/4" = 1'-0"

SHEET
310E-01



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PLAN  
3/16" = 1'-0"

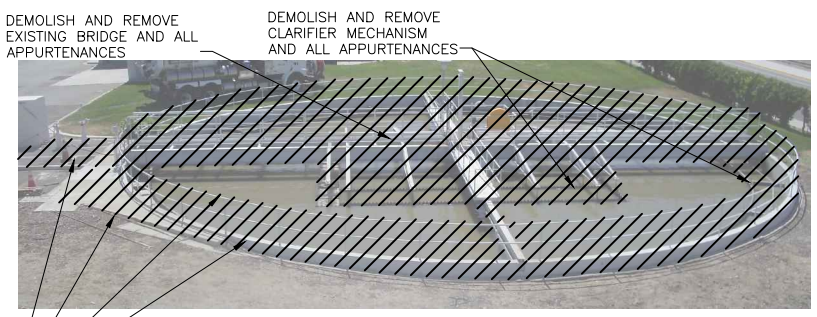


PHOTO  
NTS

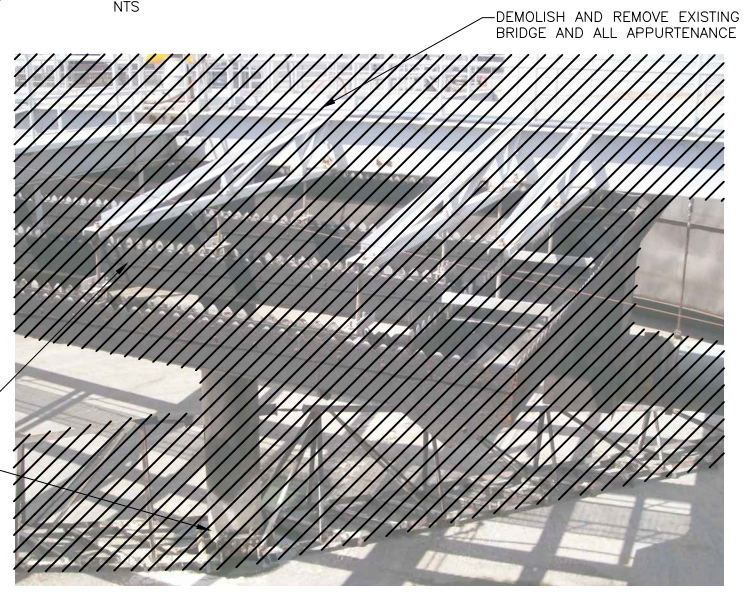


PHOTO  
NTS

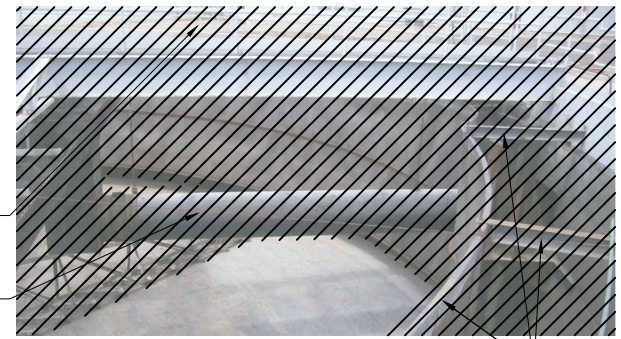


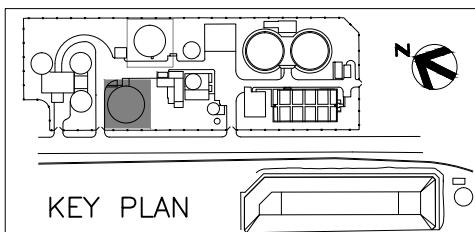
PHOTO  
NTS

GENERAL NOTES:

1. CONTRACTOR SHALL PROTECT ALL EXISTING EQUIPMENT AND PIPING NOT SHOWN TO BE REMOVED.
2. ALL EQUIPMENT, PIPING, AND CONCRETE DESIGNATED FOR REMOVAL SHALL BE PROPERLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
3. SEE SPECIFICATION SECTION 01010 FOR CONSTRUCTION SEQUENCING DETAILS.
4. FOR DEMOLITION, CONTRACTOR TO ASSUME A SIMILAR CENTER PIER FOUNDATION TYPE AS PROPOSED ON 410S-01.

KEY NOTES:

- ① PLUG EXISTING 36" SQUARE INLET PIPE OPENING IN CLARIFIER WALL AND DIVERSION BOX (BENEATH). APPROX. ELEVATION OF TOP OF PIPING IS 638.7 (FIELD VERIFY) DEMOLISH INLET PIPING AS NECESSARY TO INSTALL NEW OUTBOARD LAUNDER.
- ② EXISTING 30" EFFLUENT PIPE I.E. 634.7 (FIELD VERIFY). PLUG OPENING IN CLARIFIER WALL. DEMOLISH PIPE BETWEEN CLARIFIER AND DIVERSION BOX AS NECESSARY TO CONSTRUCT CLARIFIER OUTLET. SEE SHEET 410D-02.
- ③ CUT EXISTING HOOP BARS AND RADIAL BARS AS REQUIRED AND TEMPORARILY BEND UP TO INSTALL NEW PIPE. AFTER PIPE INSTALLATION PER SHEET 410D-02, LAP NEW BARS ONTO EXISTING OF THE SAME TYPE AND KIND.



KEY PLAN



1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	J. COOK
DRAWN	E. SJOBERG
CHECKED	
PROJECT NUMBER	171097

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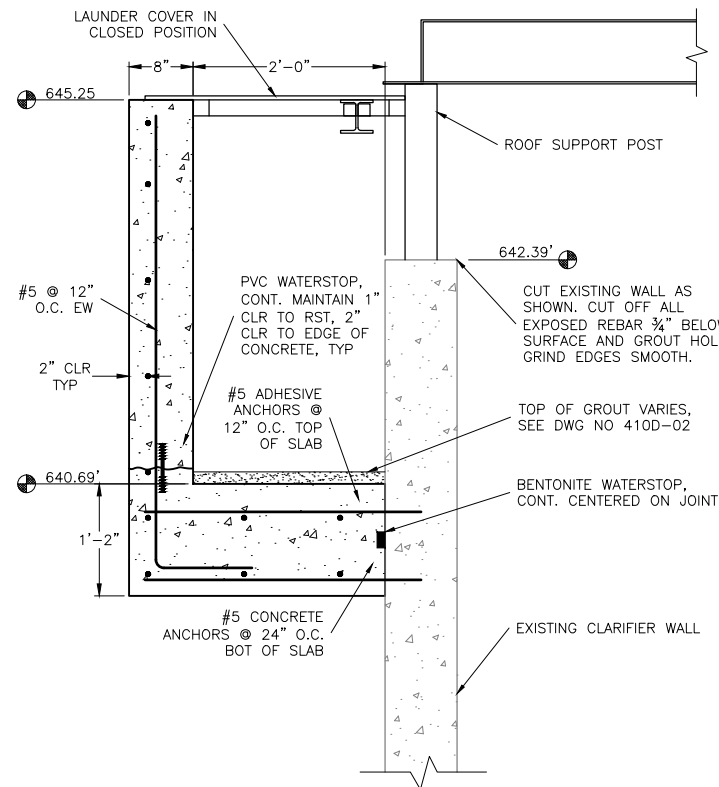
PRIMARY CLARIFIER 1  
DEMOLITION PLAN



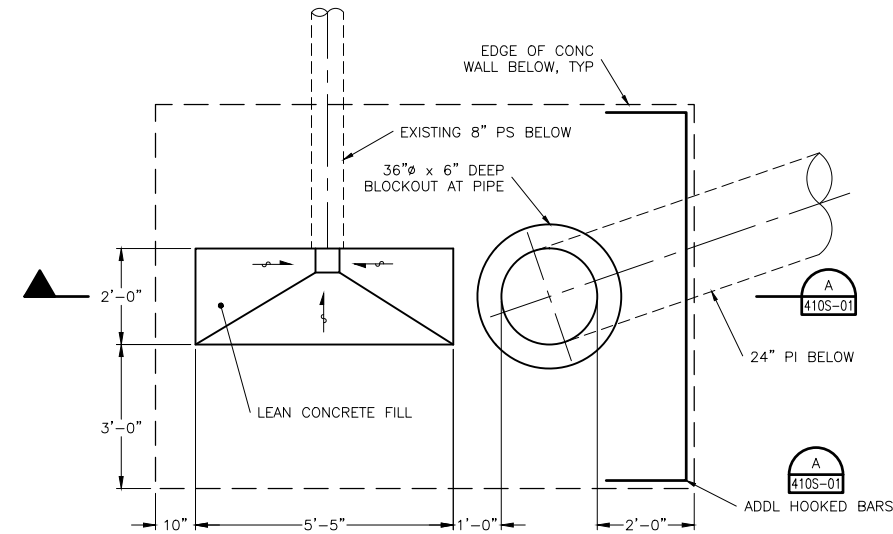
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SCALE	3/16"=1'-0"

SHEET	410X-01
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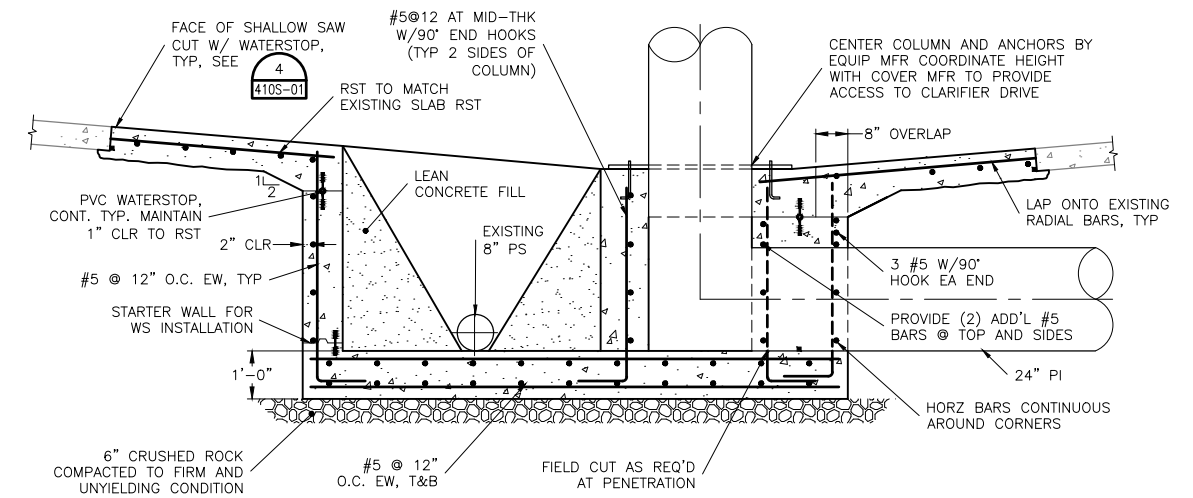
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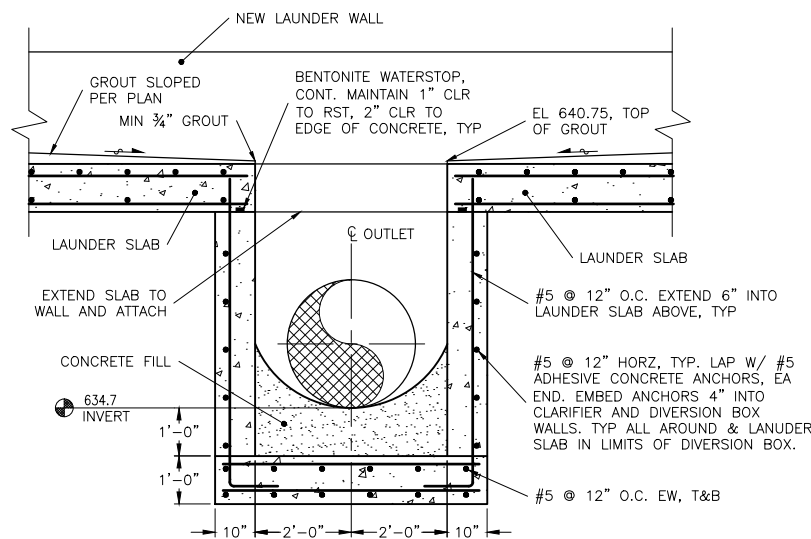
LAUNDER WALL SECTION  
1/2" = 1'-0"



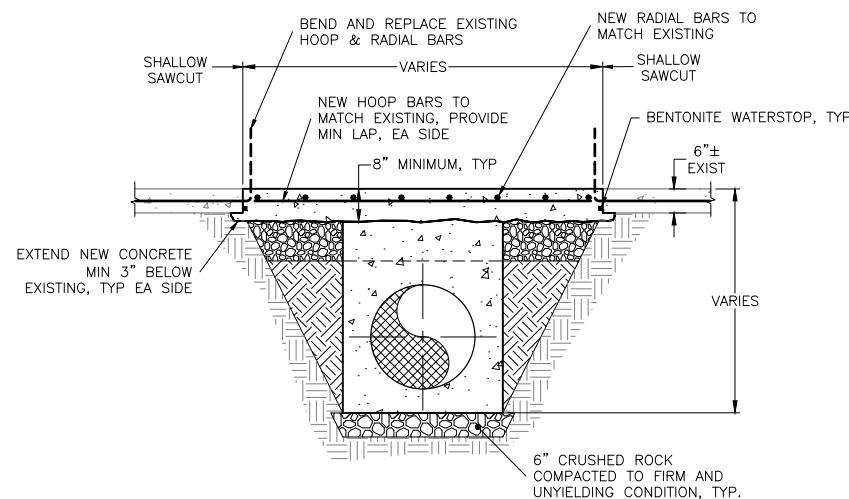
PLAN - NEW CENTER PIPE  
1/2" = 1'-0"



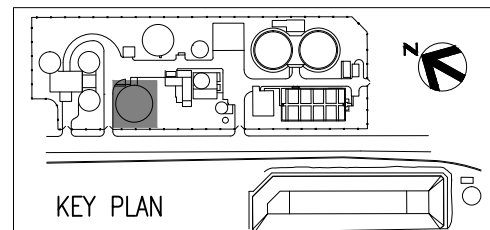
SECTION  
1/2" = 1'-0"



SECTION  
1/2" = 1'-0"



SECTION  
1/2" = 1'-0"



HDR Engineering, Inc.

ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	K. KORNIHER
DRAWN	J. CONNER
CHECKED	M. HIJAZI
PROJECT NUMBER	171097

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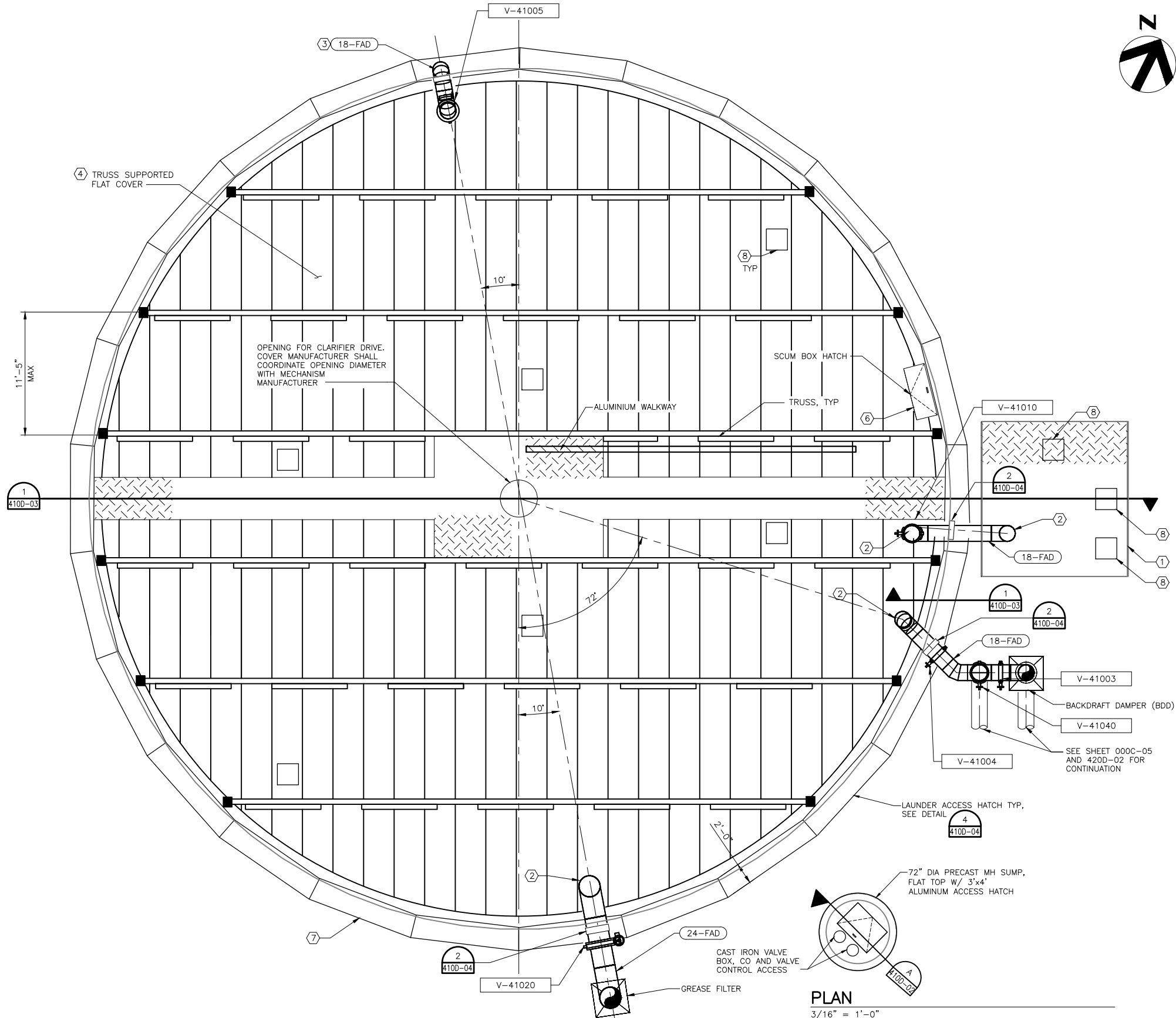
CLARIFIER NO 1  
STRUCTURAL  
SECTIONS AND DETAILS



FILENAME 410S-01.dwg  
SCALE AS SHOWN

SHEET  
410S-01

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- GENERAL NOTES:**
1. FIELD VERIFY ALL EXISTING DIMENSIONS.
  2. SEE SPECIFICATION SECTION 13221 FOR DESIGN LOADS.
  3. TRUSS SUPPORTED FLAT COVER DESIGN BY COVER MANUFACTURER AND SUBMITTED FOR REVIEW. THE DESIGN SHALL BE DONE BY A LICENSED ENGINEER IN THE STATE OF WASHINGTON.
  4. THE COVER MANUFACTURER SHALL COORDINATE SHOP DRAWINGS AND THE INSTALLATION OF THE COVER WITH THE MECHANISM MANUFACTURER.

- KEY NOTES:**
- 1 TRUSS SUPPORTED FLAT COVER TO INCLUDE EXISTING DIVERSION BOX.
  - 2 SEE DETAIL 1/410D-04 FOR ODOR DUCT PENETRATION AND SUPPORT.
  - 3 SEE DETAIL 3/410D-04 FOR INLET VENT PENETRATION.
  - 4 SEE 410S-01 AND SPEC SECTION 13221.
  - 5 PROVIDE EQUIPMENT DRAIN FOR FILTER. ROUTE 1\"/>

PLAN  
3/16" = 1'-0"



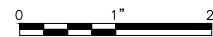
1	APR 2014	RECORD DRAWINGS
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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	J. COOK
DRAWN	E. SJOBERG
CHECKED	
PROJECT NUMBER	171097

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PRIMARY CLARIFIER NO.1  
COVER PLAN

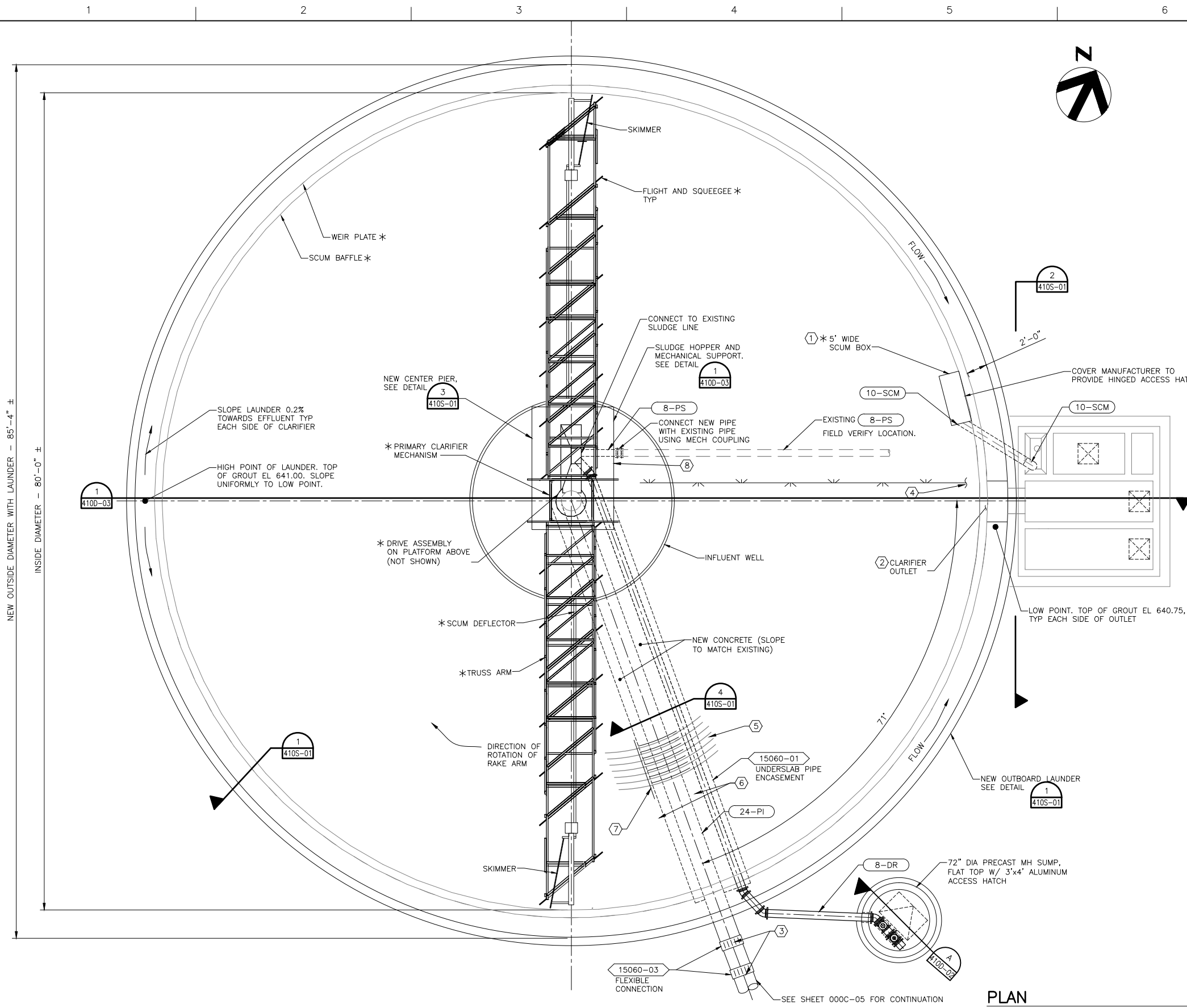


FILENAME	410D-01.dwg
SCALE	3/16"=1'-0"

SHEET	410D-01
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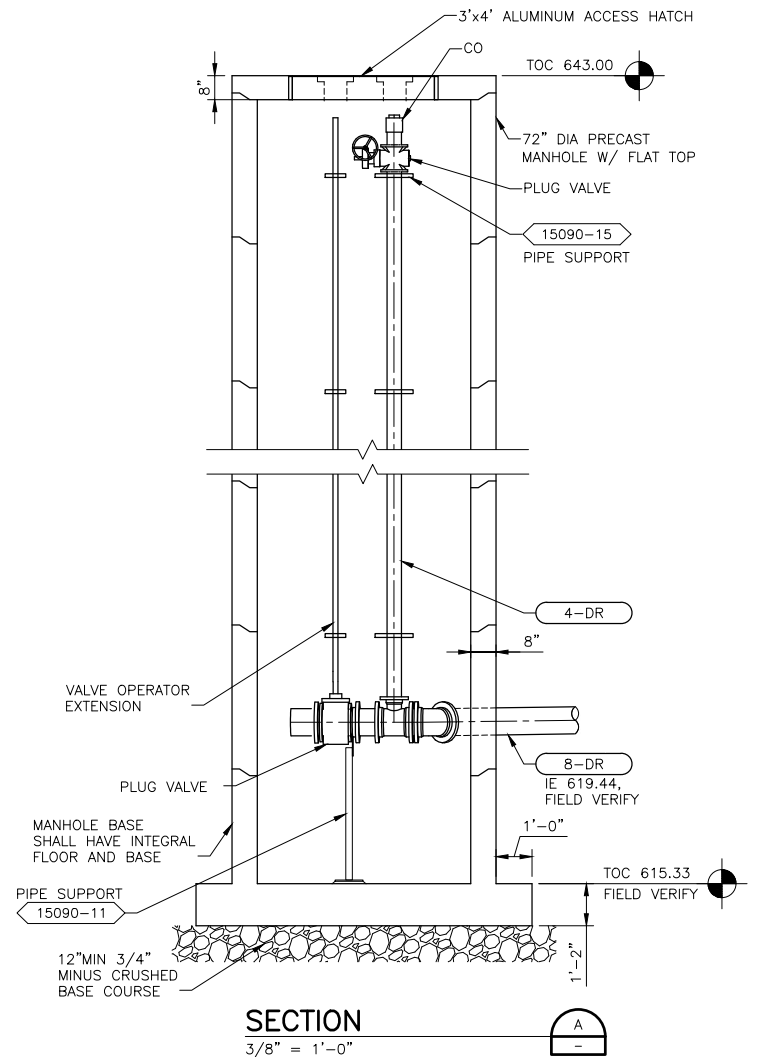


GENERAL NOTES:

- \* DESIGNATES EQUIPMENT PROVIDED BY CLARIFIER MECHANISM MANUFACTURER INSTALLED BY CONTRACTOR. ALL OTHER ITEMS SHALL BE PROVIDED BY CONTRACTOR. SEE SPECIFICATION 11125.
- CLARIFIER MECHANISM SHOWN DOES NOT DEPICT THE ACTUAL SPIRAL-TYPE MECHANISM THAT INCLUDES AN EDI FEED WELL AT THE CENTER PIER AND A SPIRAL-TYPE SLUDGE RAKE MECHANISM. SEE SPECIFICATION 11125 FOR DETAILS ON ACTUAL MECHANISM TO BE PROVIDED.

KEY NOTES:

- CONNECT TO EXISTING 10" SCUM LINE. SEE DRAWING 410D-03 FOR SCUM BOX DETAILS. SCUM BOX PROVIDED BY MANUFACTURER. CONTRACTOR TO PROVIDE SCUM PIPING.
- UTILIZE EXISTING 30" EFFLUENT PIPE. SEE DETAIL 2/410S-01.
- PROVIDE TWO RESTRAINED FLEXIBLE PIPE COUPLINGS 2'-0" APART. LOCATE FIRST COUPLING 2'-0" FROM WALL. SEE DETAIL 15060-03.
- TIE INTO EXISTING W1 AND PROVIDE SPRAY LINE. SEE SHEET 410D-03 AND SPEC SECTION 11125 FOR DETAILS.
- CUT EXISTING HOOP BARS AND RADIAL BARS AS REQ'D AND TEMPORARILY BEND UP TO INSTALL NEW PIPE. AFTER PIPE INSTALLATION, LAP NEW BARS ONTO EXIST BARS OF THE SAME TYPE AND KIND.
- BEFORE POURING CONCRETE SLAB PORTION, CLEAN SIDES OF EXISTING SLAB. SAWCUT AND APPLY EPOXY BONDING AGENT AND INSTALL WATER STOP (CONT. PER SPECS)
- NEW RADIAL BARS IN NEW SLAB AREA (TO MATCH EXISTING)
- CONT STRIP-TYPE WATERSTOP



PLAN

3/16" = 1'-0"

SECTION

3/8" = 1'-0"



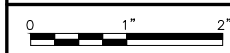
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	J. COOK
DRAWN	E. SJOBERG
CHECKED	
PROJECT NUMBER	171097

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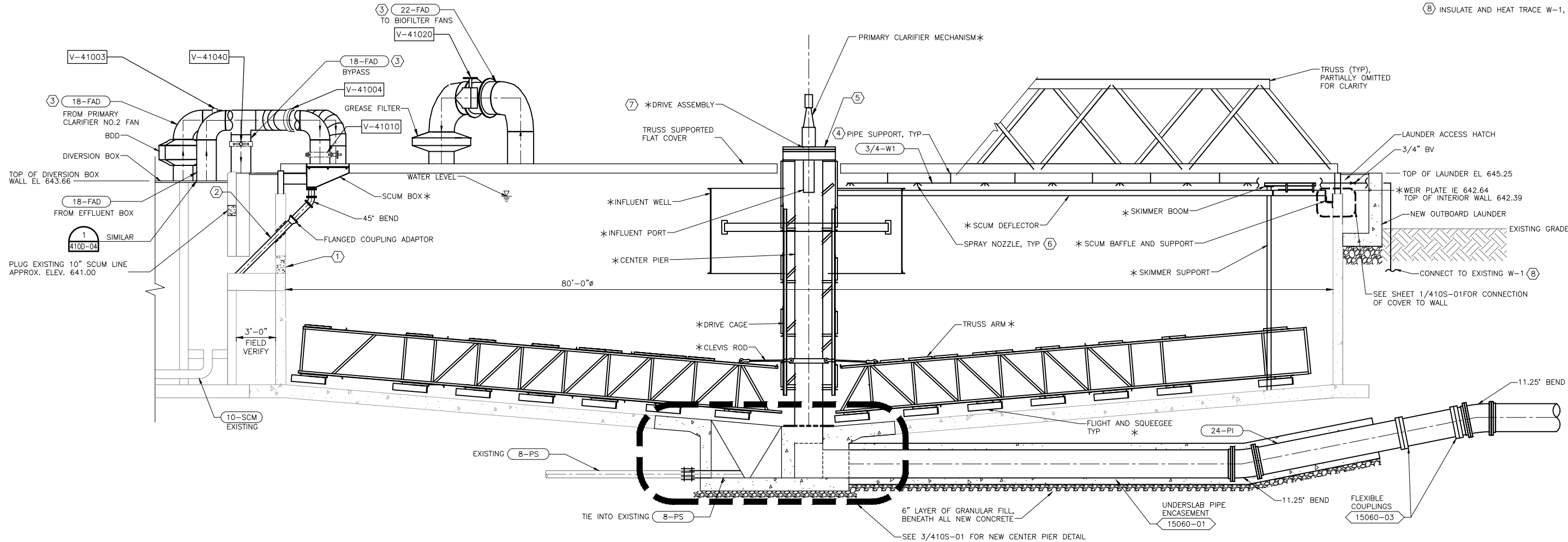
PRIMARY CLARIFIER NO.1  
PROCESS PLAN



FILENAME	410D-02.dwg
SCALE	3/16"=1'-0"

SHEET	410D-02
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GENERAL NOTES:

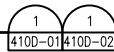
- \* DESIGNATES EQUIPMENT PROVIDED BY CLARIFIER MECHANISM MANUFACTURER INSTALLED BY CONTRACTOR. ALL OTHER ITEMS SHALL BE PROVIDED BY CONTRACTOR. SEE SPECIFICATION 11125.
- CLARIFIER MECHANISM SHOWN DOES NOT DEPICT THE ACTUAL SPIRAL-TYPE MECHANISM THAT INCLUDES AN EDI FEED WELL AT THE CENTER PIER AND A SPIRAL-TYPE SLUDGE RAKE MECHANISM. SEE SPECIFICATION 11125 FOR DETAILS ON ACTUAL MECHANISM TO BE PROVIDED.
- ALL PIPING LOCATED INSIDE THE CLARIFIER COVER SHALL BE 304SS.

KEY NOTES:

- PLUG EXISTING 30" EFFLUENT PIPE PENETRATION THROUGH CLARIFIER WALL. APPROXIMATE INVERT ELEVATION = 634.70. CUT EXISTING PIPE AT SPRINGLINE AND TIE INTO CLARIFIER EFFLUENT BOX. SEE DETAIL 2/410S-01.
- INSTALL NEW 10" SCUM PIPE FROM NEW SCUM BOX (BEHIND EFFLUENT PIPE). CORE DRILL CLARIFIER AND DIVERTER BOX WALLS AND SEAL WITH GROUT. SEE DETAIL 15060-22.
- SEE SHEET 000C-05 AND 000C-07 FOR CONTINUATION
- SUPPORT PIPING FROM COVER AS RECOMMENDED BY THE MANUFACTURER. ALL SUPPORTS SHALL BE 304SS.
- PROVIDE OPENING IN COVER FOR CLARIFIER DRIVE ASSEMBLY.
- SEE SPEC 11125 FOR REQUIREMENTS.
- CLARIFIER MECHANISM MANUFACTURER MUST COORDINATE WITH COVER MANUFACTURER DESIGN TO LOCATE DRIVE ASSEMBLY ABOVE COVER.
- INSULATE AND HEAT TRACE W-1, TYP.

PRIMARY CLARIFIER NO.1 SECTION

1/4" = 1'-0"



NOTE: SOME COMPONENTS ARE ROTATED FOR CLARITY. SEE SHEET 410D-01 AND 410D-02 FOR ACTUAL LOCATIONS.



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0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	J. COOK
DRAWN	E. SJOBERG
CHECKED	
PROJECT NUMBER	171097

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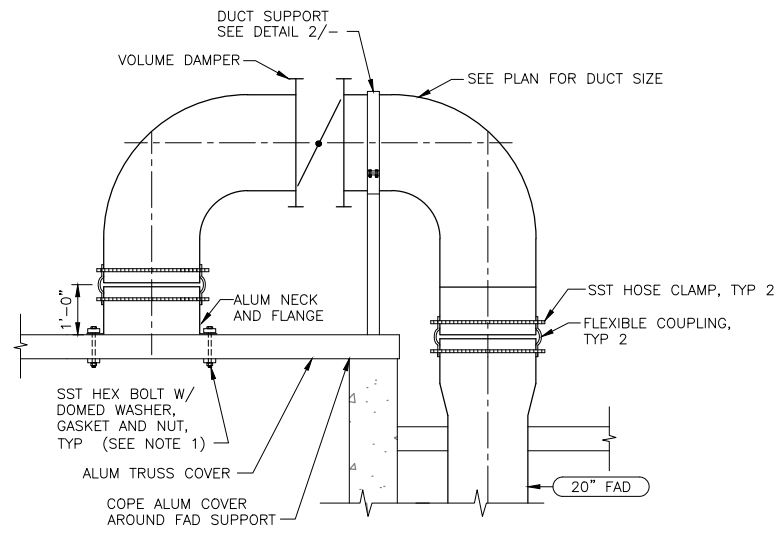
PRIMARY CLARIFIER NO.1 SECTION



FILENAME	410D-03.dwg
SCALE	1/4"=1'-0"

SHEET	410D-03
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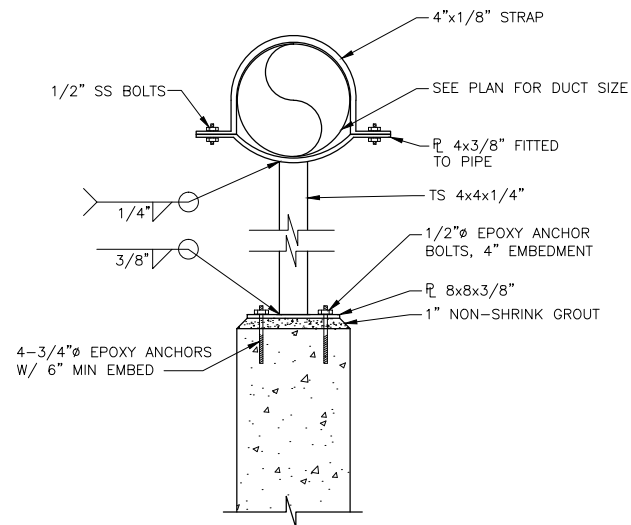
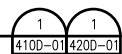


NOTES:

1. OPENING IN ALUM COVER SYSTEM TO MATCH DIAM OF FAD.
2. SECTION TYPICAL FOR PRIMARY CLARIFIERS 1 AND 2.

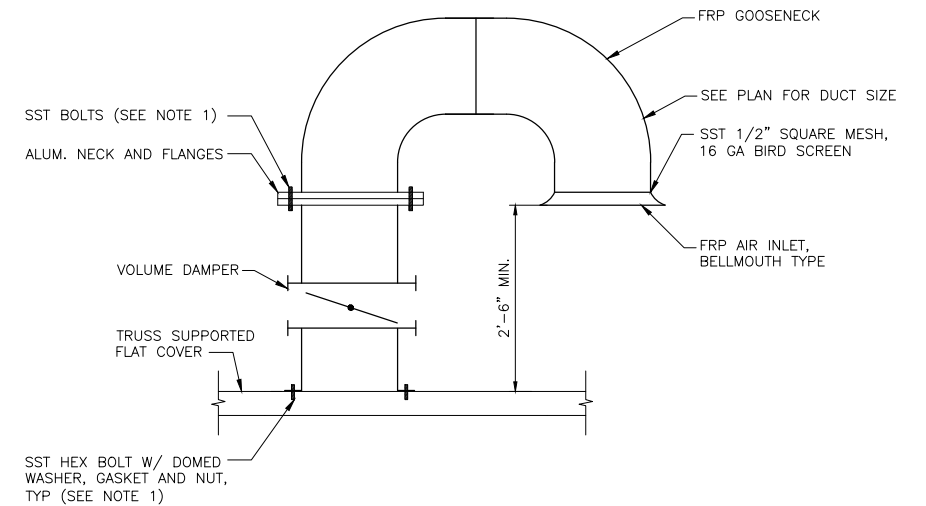
MAKE-UP AIR INLET

NTS



DUCT SUPPORT DETAIL

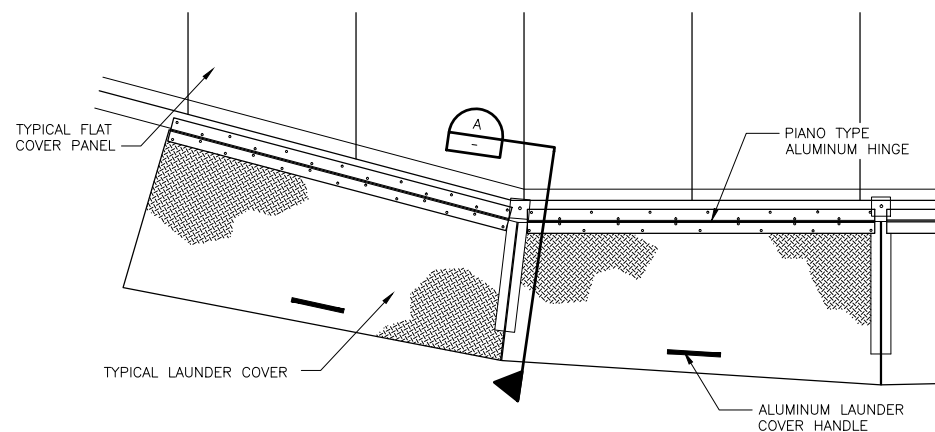
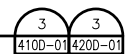
NTS



NOTE 1: PROVIDE INSULATED WASHERS TO PREVENT CONTACT BETWEEN SST AND ALUMINUM.

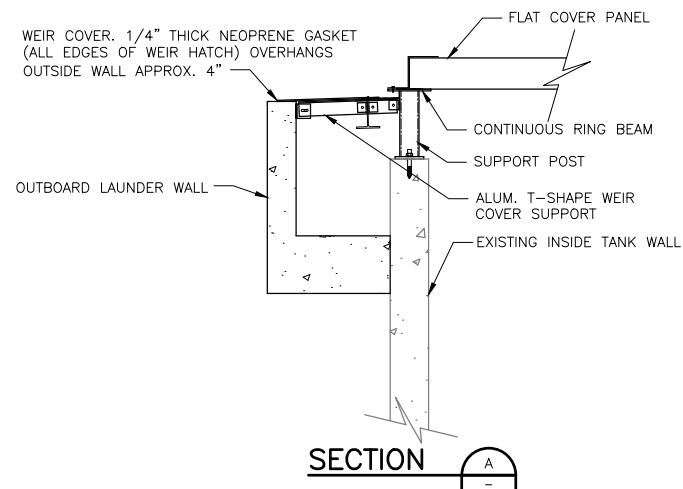
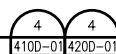
FAD/COVER CONNECTION

NTS

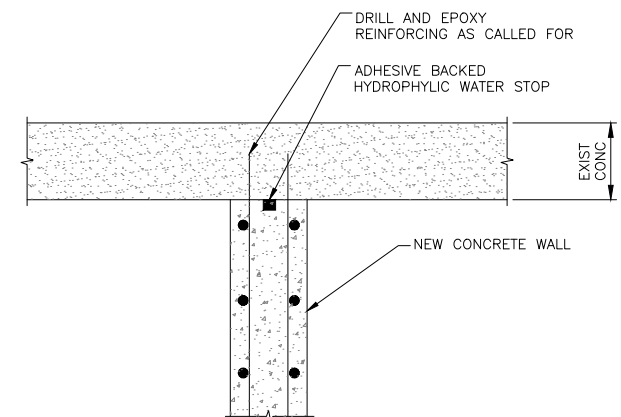


LAUNDER ACCESS HATCH

NTS



SECTION



NOTES:

1. INSTALLATION AS PER MANUFACTURERS SPECIFICATIONS.
2. MATCH EDGE DISTANCE REQUIREMENTS AS PER MANUFACTURERS SPEC.

HYDROPHYLIC WATER STOP

NTS



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	J. COOK
DRAWN	E. SJOBERG
CHECKED	
PROJECT NUMBER	171097

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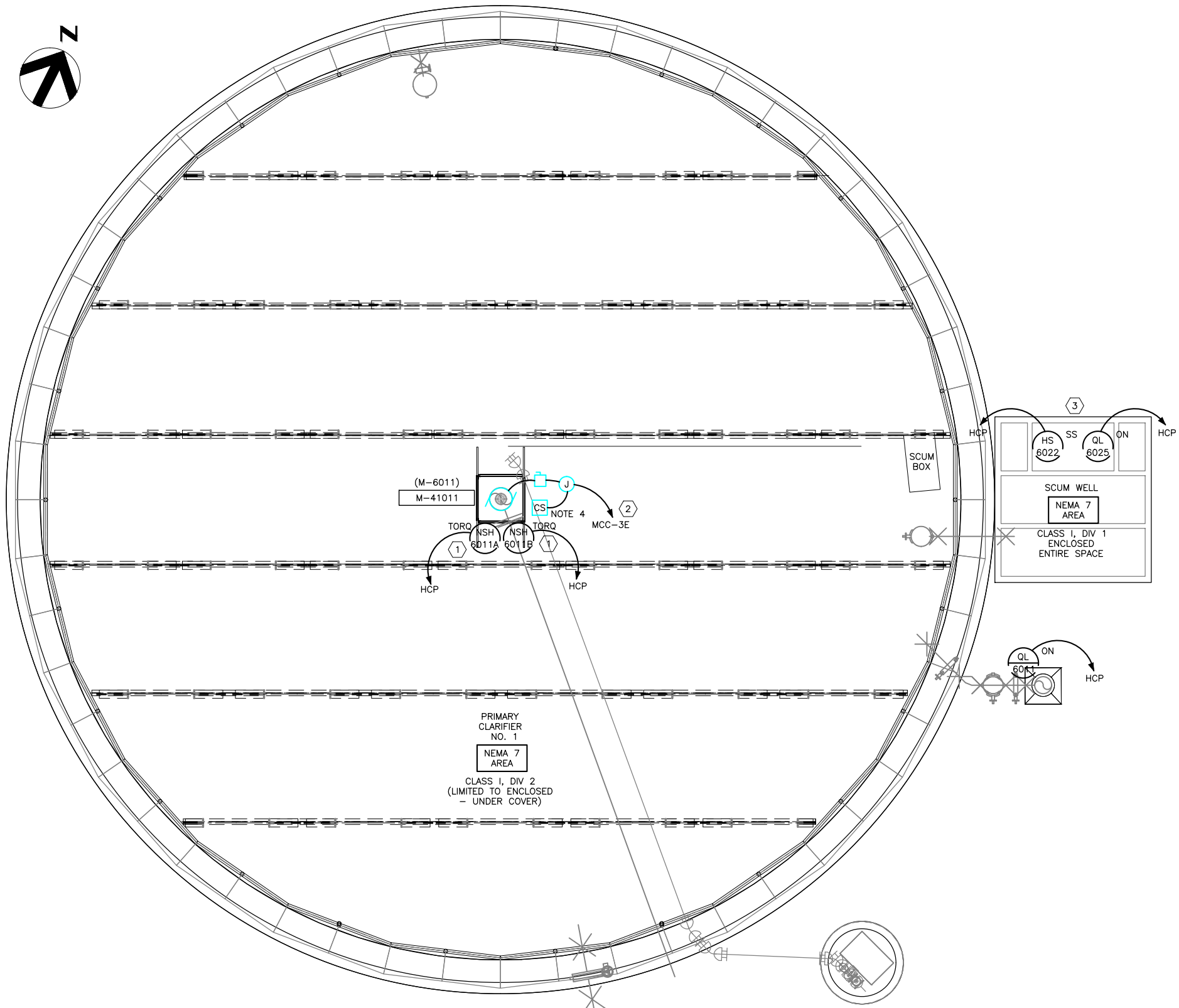
PRIMARY CLARIFIER NO. 1  
DETAILS



FILENAME	410D-04.dwg
SCALE	AS NOTED

SHEET	410D-04
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GENERAL NOTES:

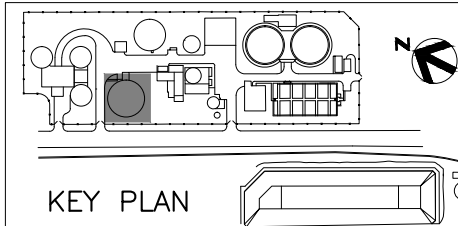
- REFER TO RECORD DRAWINGS FOR EXISTING CONDITIONS:
  - 2006 DWG ELC-03 MCC-1E ONE-LINE DIAGRAM AND ELEVATION.
  - 1992 AS-BUILT DWG E-4 MCC-3E ONE-LINE DIAGRAM AND ELEVATION.
  - 1990 SERIES 300-N FOR INSTRUMENTATION AND CONTROL.
  - 1973 DWG C7039-1 SHEETS 69 AND 72.

KEY NOTES:

- REMOVE AND REPLACE EXISTING WIRING IN CONDUIT SYSTEM FOR NEW PRIMARY CLARIFIER DRIVE UNIT ON PLATFORM ABOVE. FOR NEW INSTRUMENTS INCLUDED IN VENDOR PACKAGE, CONTRACTOR TO COORDINATE WITH MANUFACTURER FOR INSTALLATION AND INTERFACE TO EXISTING PLANT SCADA.
- MCC LOCATED IN CONTROL BUILDING, AS PER RECORD DRAWING ELC-03, SHEET 70, DATE FEBRUARY 2006.
- PRIMARY CLARIFIER NO. 1 START/STOP OF PRIMARY SLUDGE/SCUM PUMP NO. 2, WHEN THE PUMP HOA SWITCH IS IN THE "HAND" POSITION.
- COORDINATE WITH OWNER LOCATION OF NEW DRIVE CONTROL STATION RELATIVE TO HCP-HEADWORKS CONTROL PANEL.

POWER, LIGHTING AND CONTROL PLAN

SCALE: 3/16" = 1'-0"



KEY PLAN



1	APR 2014	RECORD DRAWINGS
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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	I. RINCON
DRAWN	P. MCCLINTOCK
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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PRIMARY CLARIFIER NO. 1  
POWER, LIGHTING AND CONTROL PLAN



FILENAME	410E-01.dwg
SCALE	3/16" = 1'-0"

SHEET
410E-01

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1

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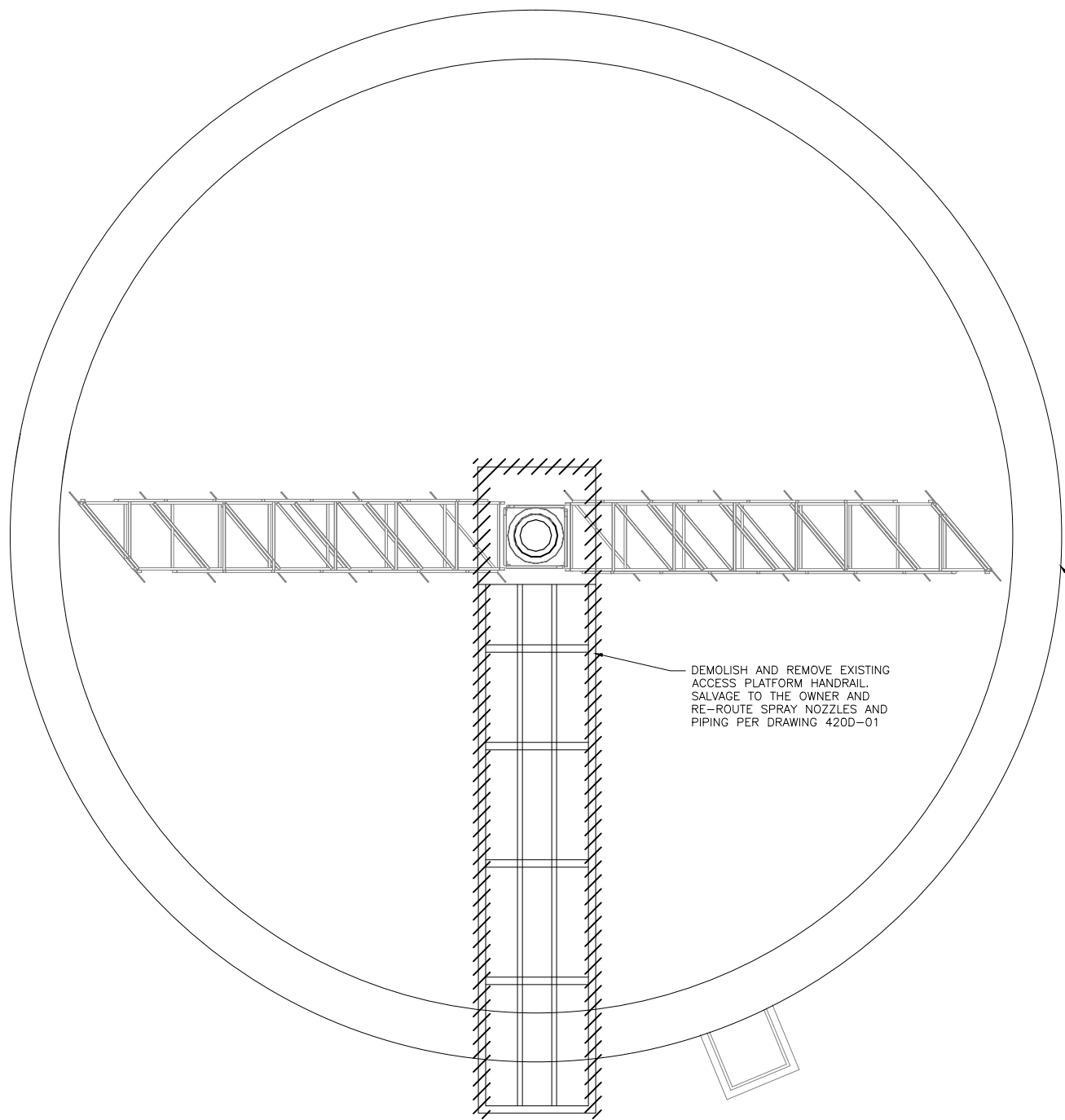
4

5

6

7

8



PLAN

3/16" = 1'-0"



REMOVE HANDRAIL AND ALL APPURTENANCES

CUT TOP OF LAUNDRY WALL AS NECESSARY TO INSTALL COVER AT ELEVATION 644.93. COORDINATE DIMENSIONS WITH COVER MANUFACTURER. EXISTING WALL ELEVATION IS APPROXIMATELY 647.2

DEMOLISH AND REMOVE EXISTING ACCESS PLATFORM HANDRAIL. SALVAGE TO THE OWNER AND RE-ROUTE SPRAY NOZZLES AND PIPING PER DRAWING 420D-01

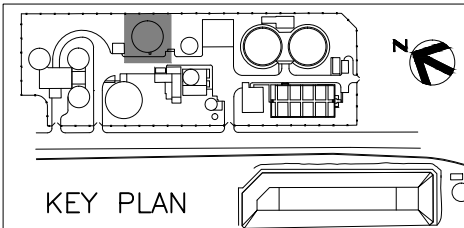


PHOTO

NTS

GENERAL NOTES:

1. CONTRACTOR SHALL PROTECT ALL EXISTING EQUIPMENT AND PIPING NOT SHOWN TO BE REMOVED.
2. ALL EQUIPMENT, PIPING, AND CONCRETE DESIGNATED FOR REMOVAL SHALL BE PROPERLY DISPOSED OF OFF-SITE BY CONTRACTOR.
3. SEE SPECIFICATION SECTION 01010 FOR CONSTRUCTION SEQUENCING DETAILS.



KEY PLAN



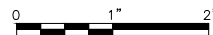
1	APR 2014	RECORD DRAWINGS
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	J. COOK
DRAWN	E. SJOBERG
CHECKED	
PROJECT NUMBER	171097

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PRIMARY CLARIFIER NO.2  
DEMOLITION PLAN



FILENAME	420X-01.dwg
SCALE	3/16"=1'-0"

SHEET  
420X-01

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1

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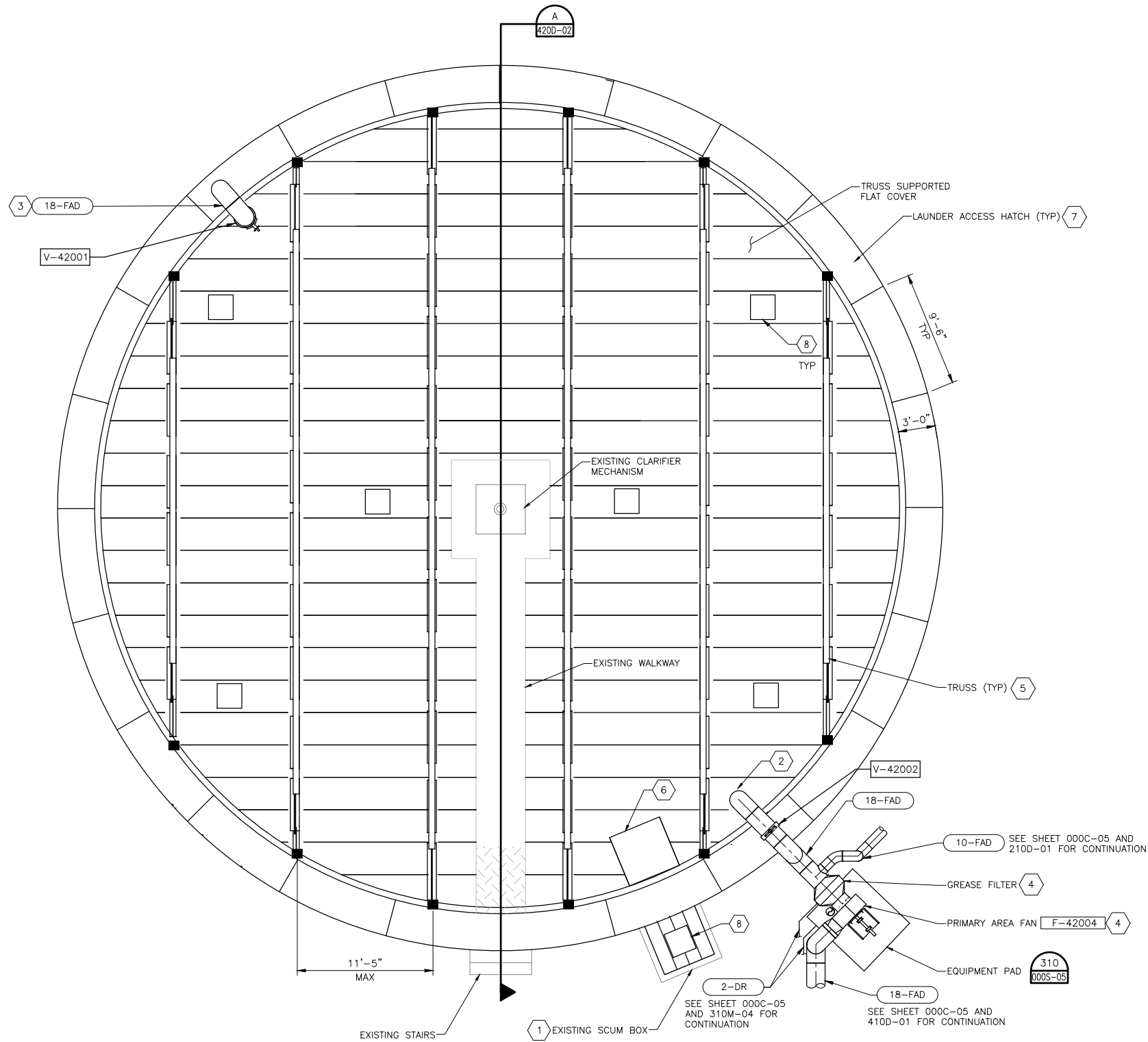


GENERAL NOTES:

1. FIELD VERIFY ALL EXISTING DIMENSIONS.
2. SEE SPECIFICATION SECTION 13221 FOR DESIGN LOADS.
3. TRUSS SUPPORTED FLAT COVER DESIGN BY COVER MANUFACTURER AND SUBMITTED FOR REVIEW.

KEY NOTES:

- 1 PROVIDE AN INDEPENDENT TRUSS/COVER SYSTEM FOR THE EXISTING SCUM BOX.
- 2 SEE DETAIL 1/410D-01 FOR ODOR DUCT PENETRATION.
- 3 SEE DETAIL 3/410D-01 FOR INLET VENT PENETRATION.
- 4 PROVIDE EQUIPMENT DRAIN FOR FAN AND FILTER. ROUTE 2" DRAIN LINE TO GROUND.
- 5 SEE SPEC SECTION 13221.
- 6 SCUM BOX HATCH PROVIDED BY COVER MANUFACTURER.
- 7 LAUNDRY ACCESS HATCH. SEE DETAIL 4/410D-01.
- 8 MECHANISM OBSERVATION HATCH, 24"x24".



PLAN

3/16" = 1'-0"



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PROJECT MANAGER	A. MEILLEUR
DESIGNED	J. COOK
DRAWN	E. SJOBERG
CHECKED	
PROJECT NUMBER	171097

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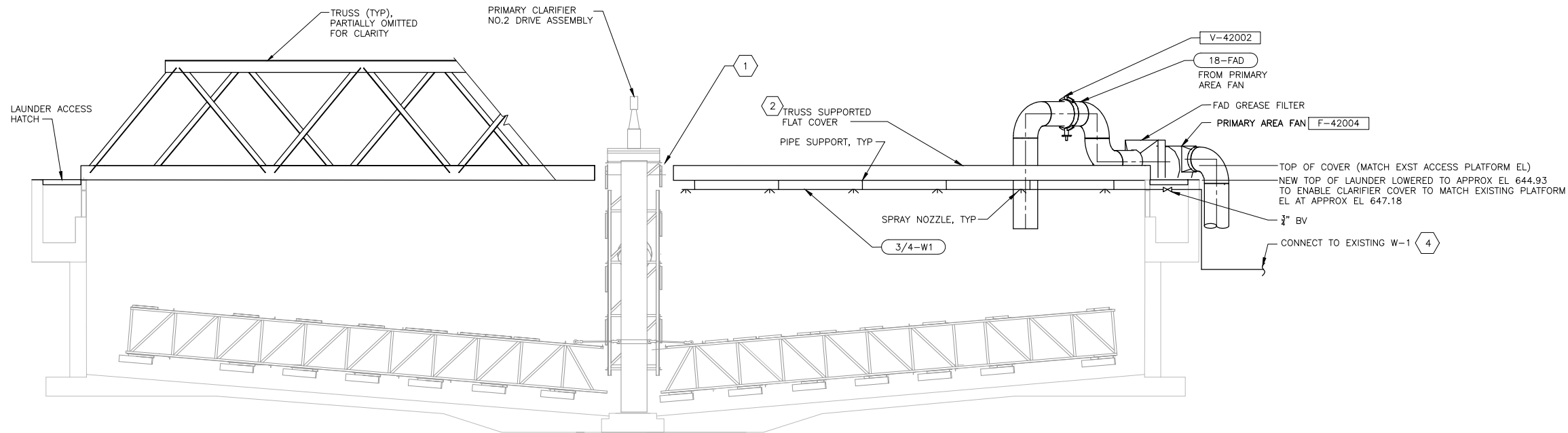


PRIMARY CLARIFIER NO.2  
PLAN



FILENAME	420D-01.dwg	SHEET
SCALE	3/16"=1'-0"	420D-01

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- GENERAL NOTES:**
1. FIELD VERIFY ALL EXISTING DIMENSIONS.
  2. SEE SPECIFICATION SECTION 13221 FOR DESIGN LOADS.
  3. TRUSS SUPPORTED FLAT COVER DESIGN BY COVER MANUFACTURER AND SUBMITTED FOR REVIEW.
- KEY NOTES:**
- 1 PROVIDE OPENING IN COVER FOR CLARIFIER DRIVE AND SCUM BOX ASSEMBLY.
  - 2 SUPPORT SPRAY BAR PIPING FROM COVER AS RECOMMENDED BY MANUFACTURER. ALL SUPPORTS SHALL BE 304SS.
  - 3 SEE SPEC SECTION 11125 FOR REQUIREMENTS.
  - 4 INSULATE AND HEAT TRACE.

**PRIMARY CLARIFIER NO.2 SECTION**  
1/4" = 1'-0" A  
4200-01



1	APR 2014	RECORD DRAWINGS
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DESIGNED	J. COOK
DRAWN	E. SJOBERG
CHECKED	
PROJECT NUMBER	171097

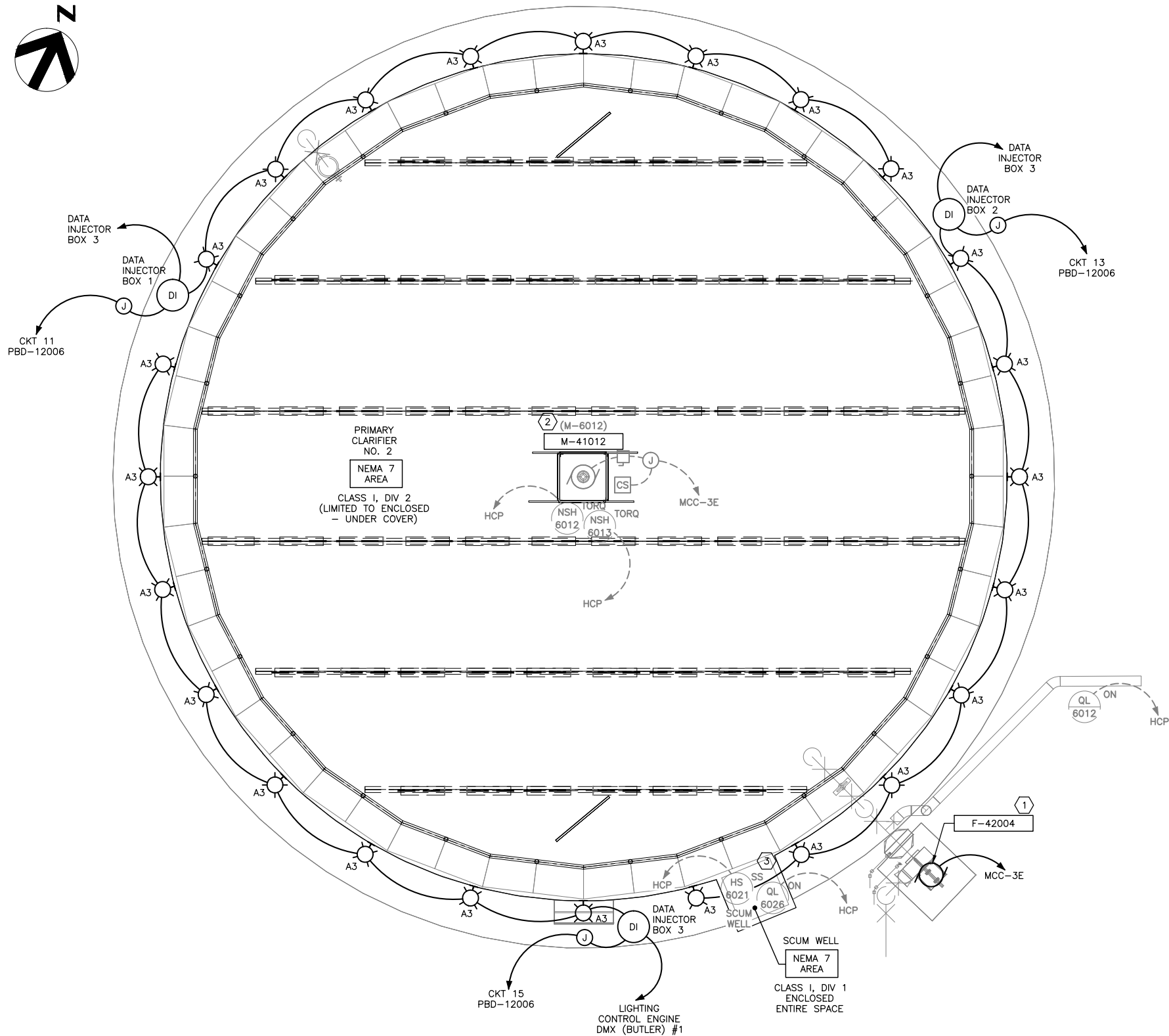
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**PRIMARY CLARIFIER NO.2 PIPING PLAN**

FILENAME	420D-02.dwg	SHEET
SCALE	1/4"=1'-0"	<b>420D-02</b>

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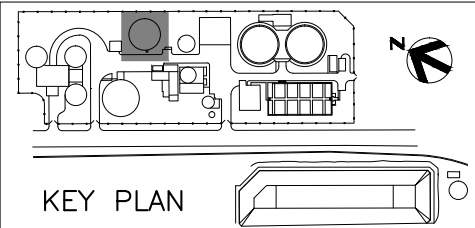
POWER, LIGHTING AND CONTROL PLAN  
SCALE: 3/16" = 1'-0"

GENERAL NOTES:

- REFER TO RECORD DRAWINGS FOR EXISTING CONDITIONS:
  - 2006 DWG ELC-03 MCC-1E ONE-LINE DIAGRAM AND ELEVATION.
  - 1992 AS-BUILT DWG E-4 MCC-3E ONE-LINE DIAGRAM AND ELEVATION.
  - 1990 SERIES 300-N FOR INSTRUMENTATION AND CONTROL.

KEY NOTES:

- NEW PRIMARY CLARIFIERS ODOR CONTROL FAN.
- EXISTING PRIMARY CLARIFIER MECHANISM AS PER AS-BUILT DRAWING NO. E-4, DATE AUGUST 1992.
- LOCATED AT THE SCUM WELL TO STOP/START PRIMARY SLUDGE/SCUM PUMP NO. 1, WHEN THE PUMP HOA SWITCH IS IN THE "HAND" POSITION.
- PUBLIC ART SHOW ACCENT LIGHTING CONCEPT. REFER TO ARCHITECTURAL SHEETS FOR LUMINAIRES MOUNTING DETAILS.
- REFER TO ARCHITECTURAL LIGHTING FIXTURE AND PANELBOARD SCHEDULE FOR LUMINAIRE POWER AND DATA CABLE INFORMATION.
- ACCENT LIGHTING SPECIALIST CONTRACTOR TO PROVIDE COMPLETE DETAILED DESIGN IN COORDINATION WITH ARTISTIC LIGHTING CONSULTANT.



KEY PLAN



ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	I. RINCON
DRAWN	P. MCCLINTOCK
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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PRIMARY CLARIFIER NO. 2  
POWER, LIGHTING AND CONTROL PLAN

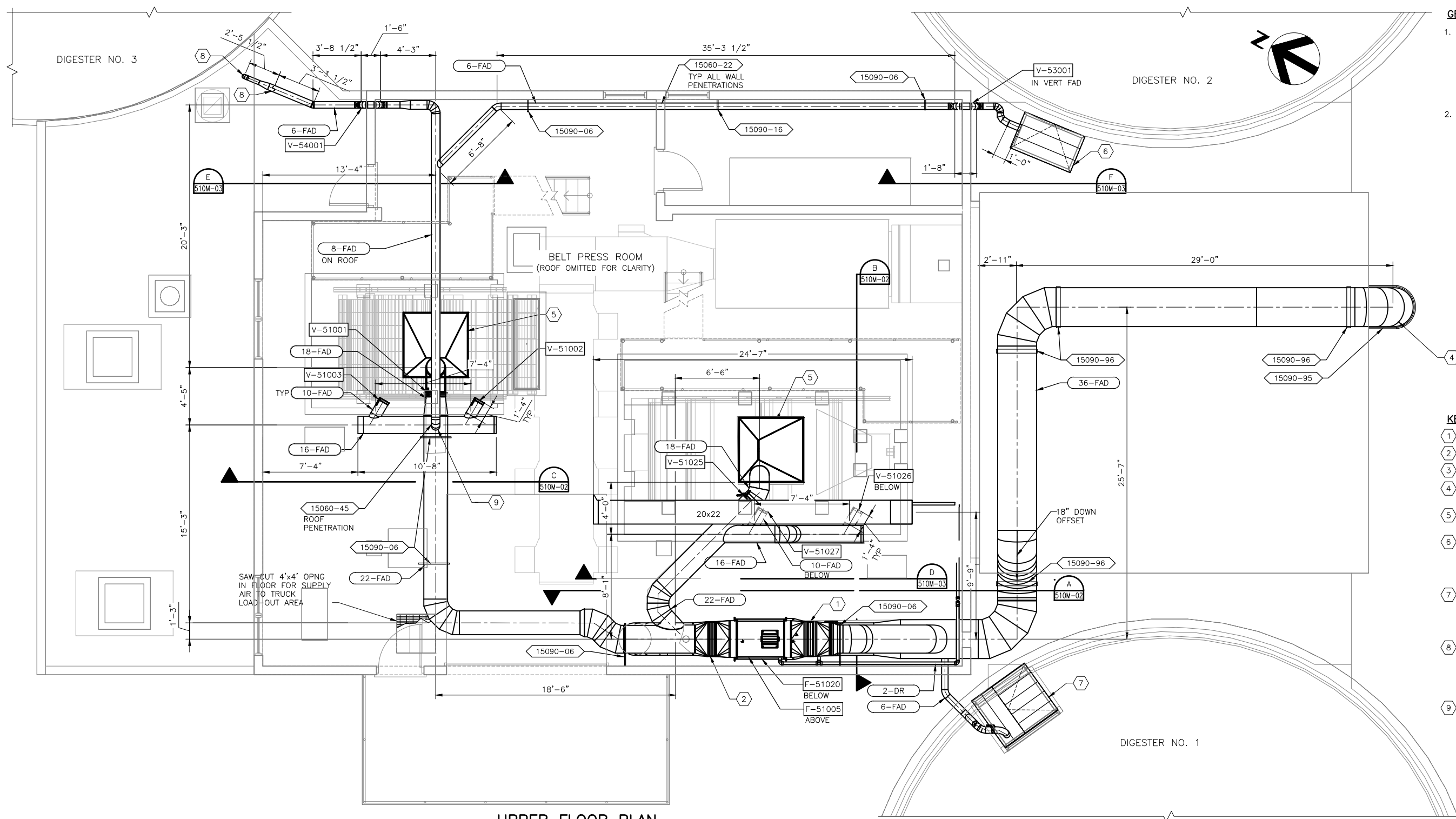


FILENAME	420E-01.dwg
SCALE	3/16" = 1'-0"

SHEET	420E-01
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UPPER FLOOR PLAN

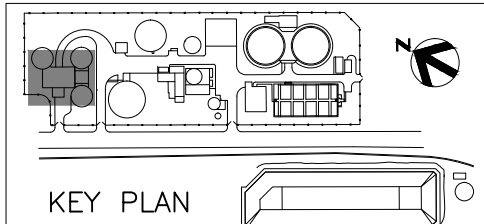
1/4" = 1'-0"

GENERAL NOTES:

1. THE FAD AND HVAC MANUFACTURERS SHALL BE RESPONSIBLE FOR LOCATING AND DESIGNING THE FAD AND HVAC DUCT SUPPORTS, INCLUDING THE STRUCTURAL INTEGRITY OF THE FAD AND HVAC DUCT. THE DESIGN SHALL BE DONE BY A LICENSED ENGINEER IN THE STATE OF WASHINGTON.
2. DUCT, FAN, DAMPER AND HOOD SUPPORTS: PROVIDE SUPPORTS AS SPECIFIED FOR PIPES. USE THE FOLLOWING STANDARD DETAILS WHERE APPROPRIATE:
  - 15060-19 DUCT IN EXISTING WALL
  - 15090-05 MEDIUM PIPE SUPPORT - WALL
  - 15090-06 HEAVY PIPE SUPPORT - WALL
  - 15090-07 HEAVY DUTY PIPE SUPPORT - WALL
  - 15090-08 SURFACE MOUNT MODULAR STRUT
  - 15090-17 TRAPEZE HANGER
  - 15090-95 VERTICAL DUCT SUPPORT
  - 15090-96 ROOF DUCT SUPPORT

KEY NOTES:

- 1 32"x32" BACKDRAFT DAMPER (BDD).
- 2 32"x32" GREASE FILTER (FLT).
- 3 HVAC DUCTING.
- 4 SEE YARD PIPING PLAN FOR CONTINUATION, SHEET 000C-03.
- 5 FABRICATE 5'x5' EXHAUST HOOD PER SPECIFICATION 15890.
- 6 CUSTOM RETROFIT COVER WITH HATCH OVER DIGESTER NO. 2; OPEN DIGESTER VENTS SEE PHOTO 2/510M-03. FIELD MEASUREMENT AND SHOP SUBMITTAL REQUIRED.
- 7 CUSTOM RETROFIT COVER WITH HATCH OVER DIGESTER NO. 1; OPEN DIGESTER VENTS SEE PHOTO 1/510M-02. FIELD MEASUREMENT AND SHOP SUBMITTAL REQUIRED.
- 8 CONNECT FAD DUCTING TO EXISTING DIGESTER OVERFLOW VENTS, THE CONTRACTOR SHALL RETROFIT THE INSTALLATION, SEE PHOTO 1/510M-03. FIELD MEASUREMENT AND SHOP SUBMITTAL REQUIRED.
- 9 FAD MOUNTED ON ROOF BEHIND PARAPET WALL. CONTRACTOR SHALL COMPLETE ROOF PENETRATION AND REPAIR EXISTING ROOF PER DETAIL 15060-45.



KEY PLAN



ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	MANION/HARMON
DRAWN	H. FANCHER
CHECKED	
PROJECT NUMBER	171097

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SOLIDS HANDLING BUILDING  
UPPER FLOOR PLAN

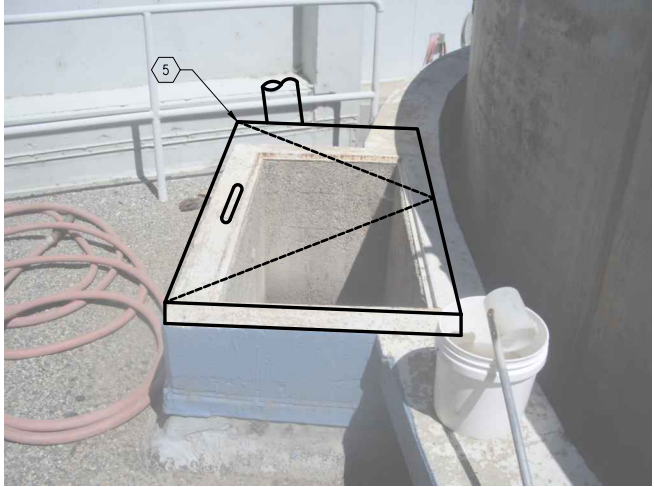
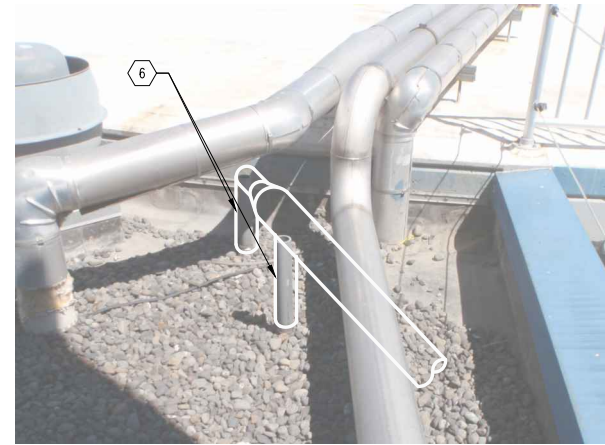
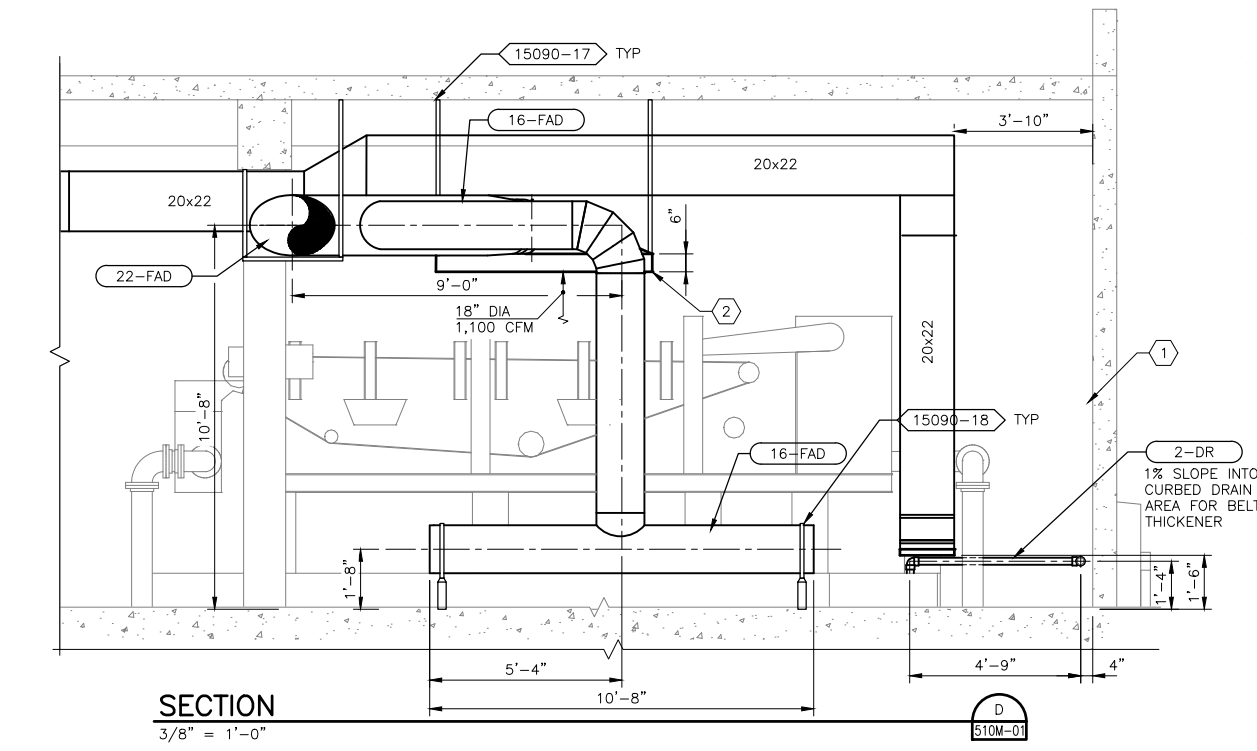
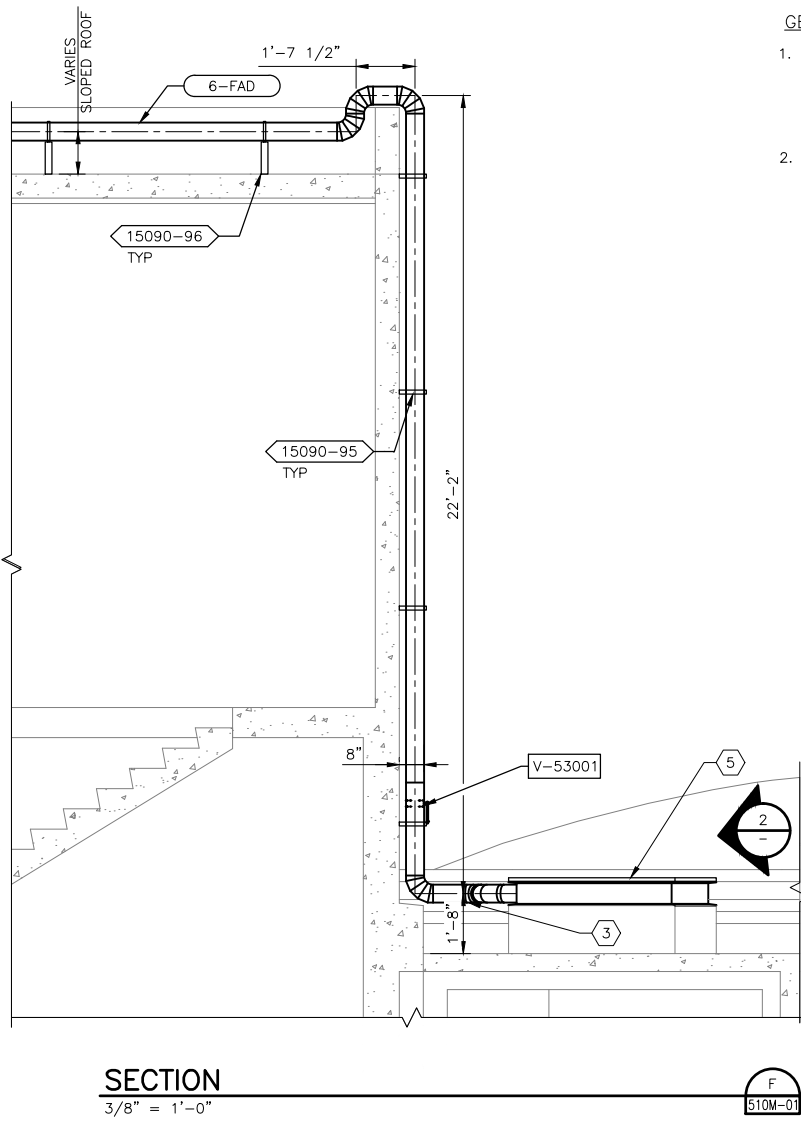
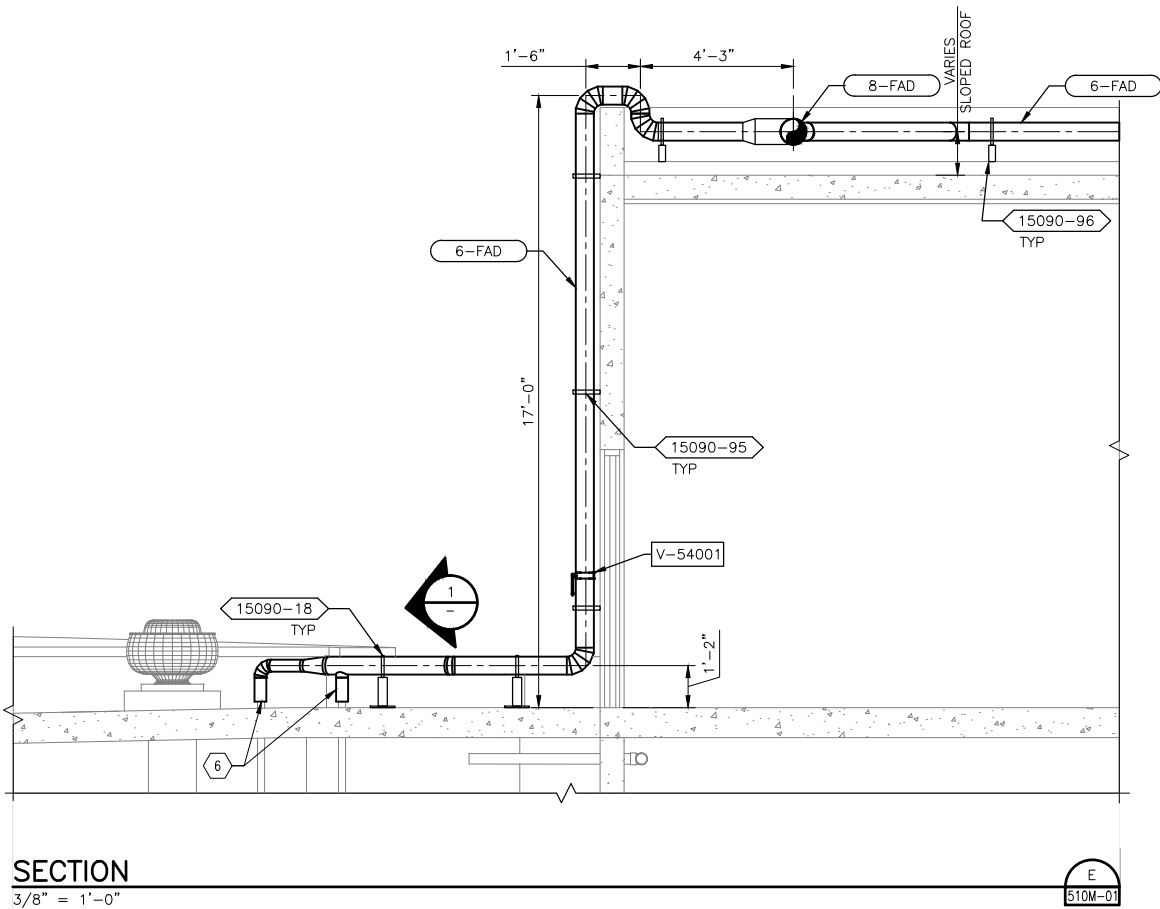


FILENAME	510M-01.dwg
SCALE	1/4"=1'-0"

SHEET	510M-01
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- GENERAL NOTES:**
1. THE FAD AND HVAC MANUFACTURERS SHALL BE RESPONSIBLE FOR LOCATING AND DESIGNING THE FAD AND HVAC DUCT SUPPORTS, INCLUDING THE STRUCTURAL INTEGRITY OF THE FAD AND HVAC DUCT. THE DESIGN SHALL BE DONE BY A LICENSED ENGINEER IN THE STATE OF WASHINGTON.
  2. DUCT, FAN, DAMPER AND HOOD SUPPORTS:  
PROVIDE SUPPORTS AS SPECIFIED FOR PIPES. USE THE FOLLOWING STANDARD DETAILS WHERE APPROPRIATE:  
15060-19 DUCT IN EXISTING WALL  
15090-05 MEDIUM PIPE SUPPORT - WALL  
15090-06 HEAVY PIPE SUPPORT - WALL  
15090-07 HEAVY DUTY PIPE SUPPORT - WALL  
15090-08 SURFACE MOUNT MODULAR STRUT  
15090-17 TRAPEZE HANGER  
15090-95 VERTICAL DUCT SUPPORT  
15090-96 ROOF DUCT SUPPORT
- KEY NOTES:**
- 1 HVAC DUCTING.
  - 2 FABRICATE 5'x5' EXHAUST HOOD PER SPECIFICATION 15890.
  - 3 FLEXIBLE FAD PIPE CONNECTION.
  - 4 CORE DRILL HOLE IN EXISTING BUILDING FOR FAD WALL PIPE, SEE STANDARD DETAIL 15060-22.
  - 5 CUSTOM RETROFIT HOOD OVER DIGESTER NO.2 OPEN DIGESTER VENTS, SEE PHOTO 1/510M-03, FIELD MEASUREMENT AND SHOP SUBMITTAL REQUIRED.
  - 6 CONNECT FAD DUCTING TO EXISTING DIGESTER NO. 3 OVERFLOW VENTS. THE CONTRACTOR SHALL RETROFIT THE INSTALLATION, SEE PHOTO 1/510M-03. FIELD MEASUREMENT AND SHOP SUBMITTAL REQUIRED.



1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	J. MANION
DRAWN	H. FANCHER
CHECKED	
PROJECT NUMBER	171097

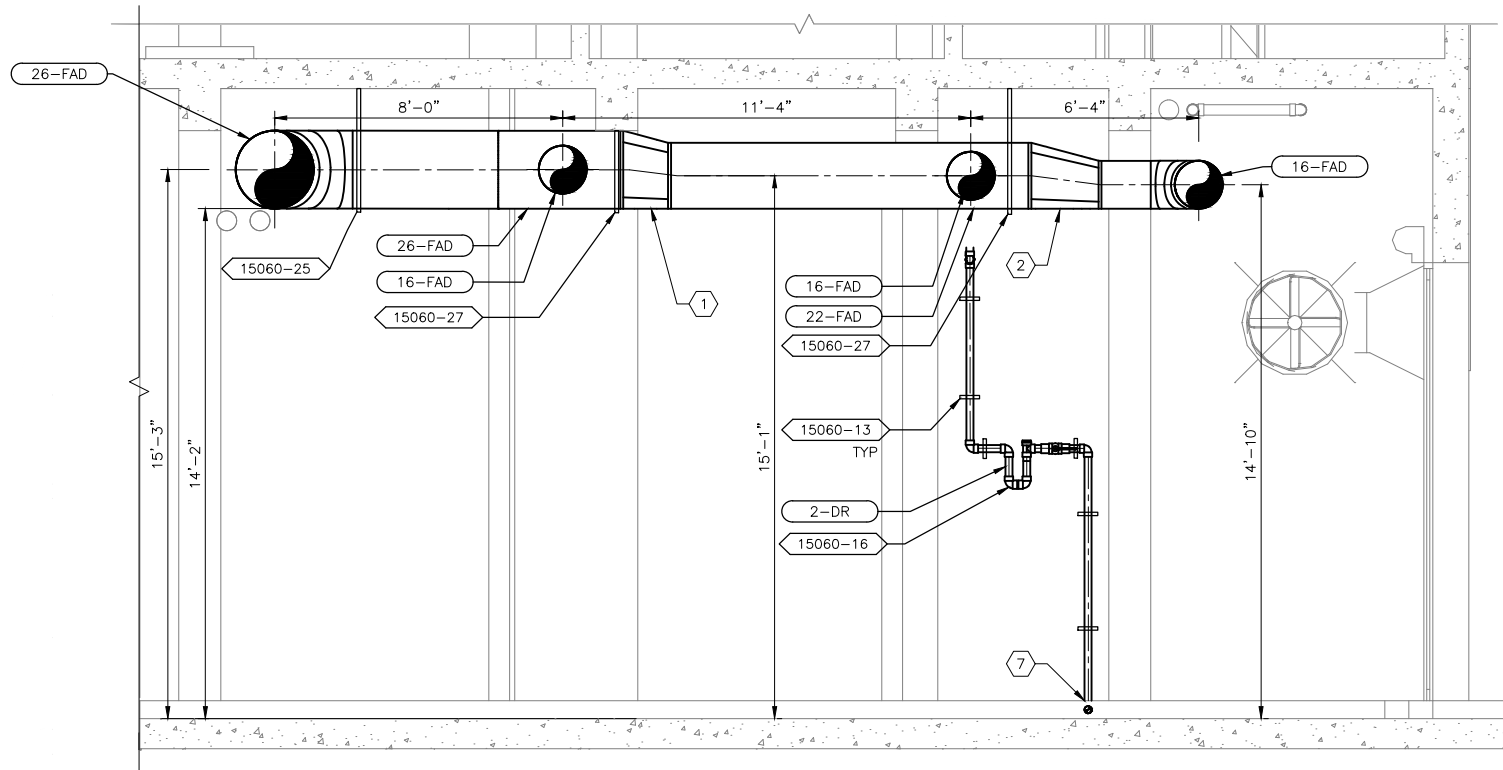
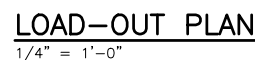
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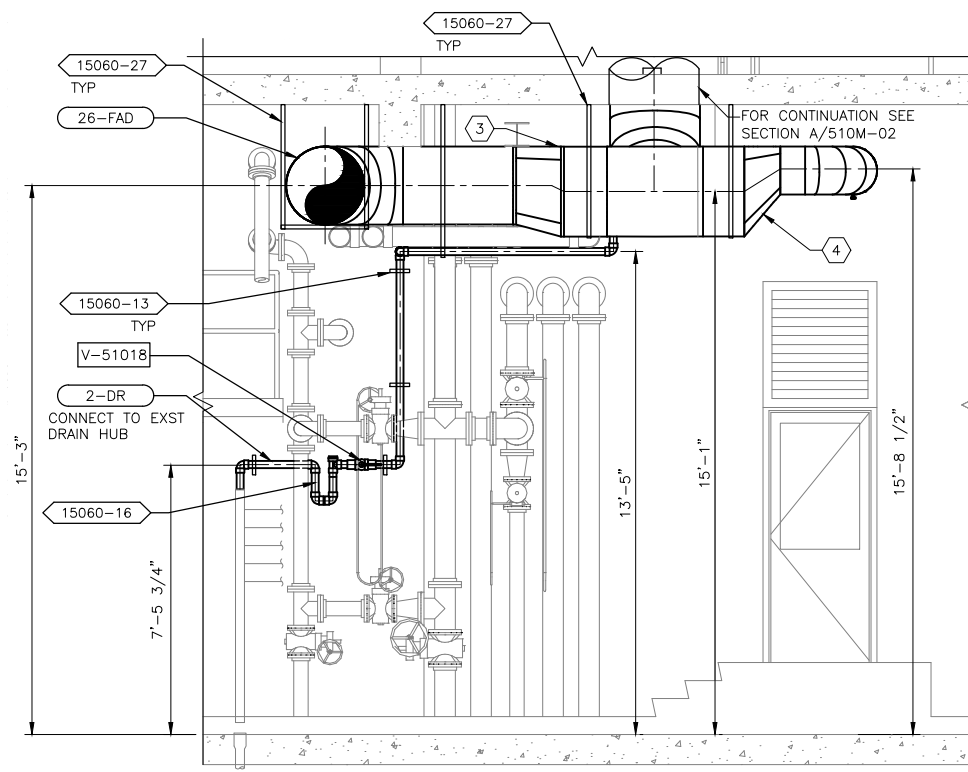
**SOLIDS HANDLING BUILDING UPPER FLOOR SECTIONS II**

0 1" 2"

FILENAME	510M-03.dwg	SHEET
SCALE	AS NOTED	<b>510M-03</b>



**SECTION**  
3/8" = 1'-0"



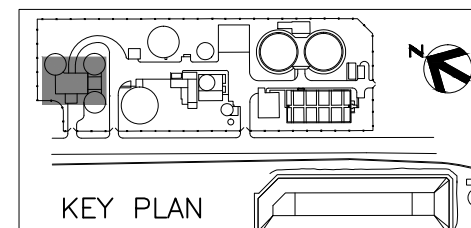
**SECTION**  
3/8" = 1'-0"



PHOTO  
NO SCALE



PHOTO  
NO SCALE



- ① 22x26 ECCENTRIC FAD REDUCER.
- ② 16x22 CONCENTRIC FAD REDUCER.
- ③ 26x30 ECCENTRIC FAD REDUCER.
- ④ 16x30 ECCENTRIC FAD REDUCER.
- ⑤ RETROFIT AND CONNECT PIPING TO EXISTING.
- ⑥ RETROFIT HW1 AND W1 PIPING ACCORDING TO GENERAL NOTE 2.
- ⑦ CUT CONCRETE AND PLACE 2" DRAIN AND RE-GROUT CONCRETE.

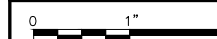
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	MANION/HARMON
DRAWN	SJOBORG/FANCHER
CHECKED	
PROJECT NUMBER	171097

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## SOLIDS HANDLING BUILDING LOAD-OUT PLAN AND SECTIONS

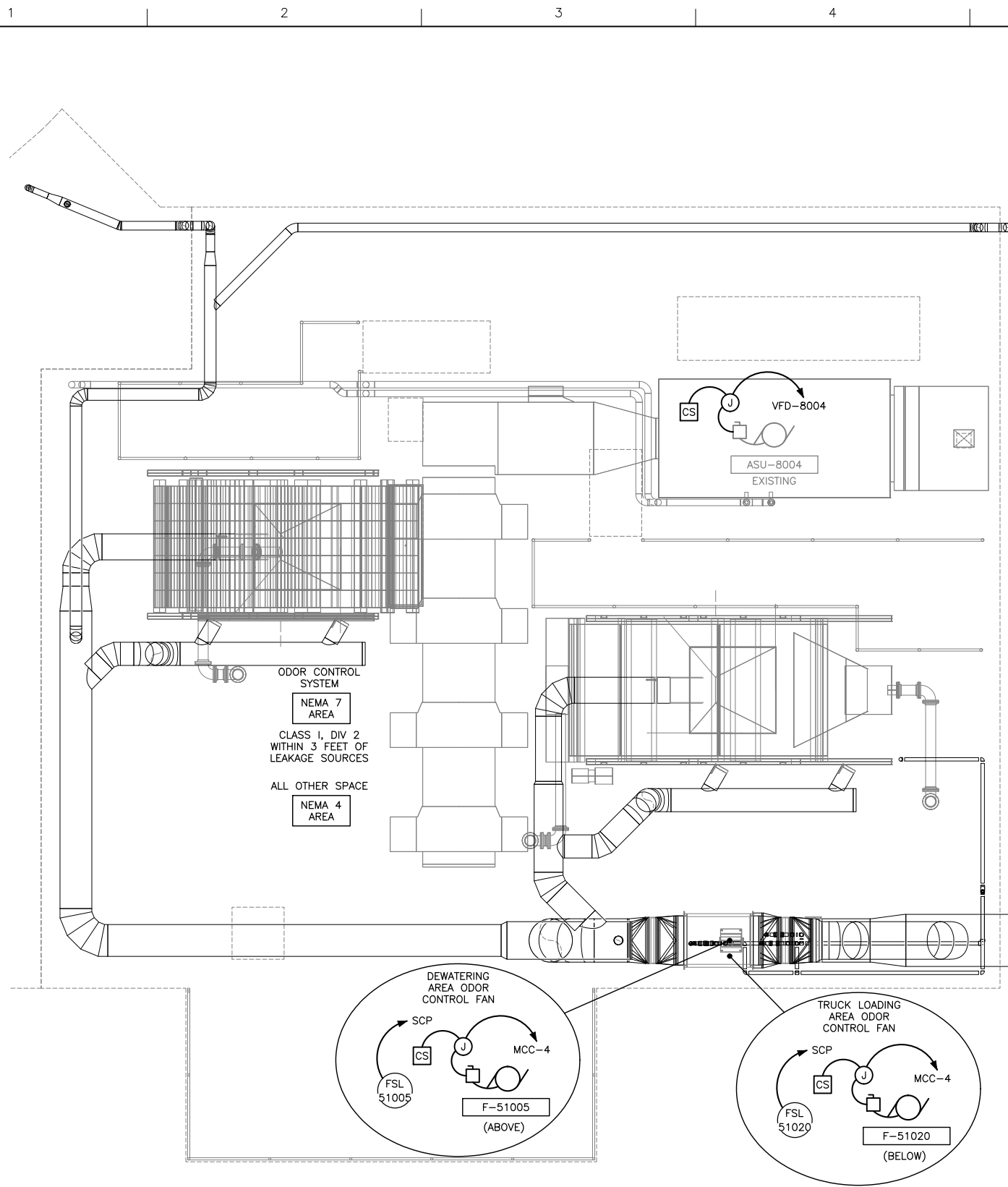


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SCALE	AS NOTED	

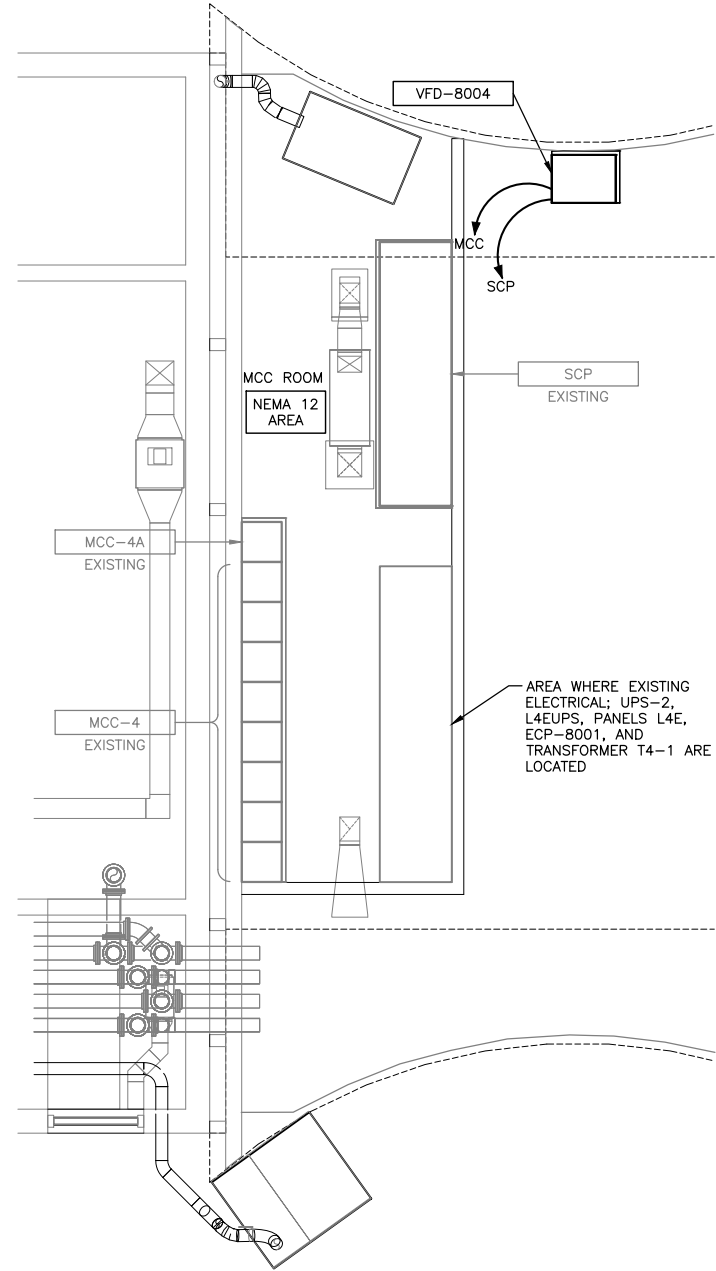
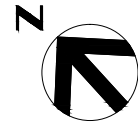




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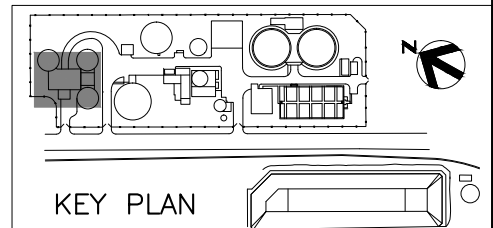
UPPER LEVEL POWER AND CONTROL PLAN  
SCALE: 1/4" = 1'-0"



GROUND LEVEL POWER AND CONTROL PLAN  
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

- COORDINATE WITH OWNER PRIOR TO THE REMOVAL OF ELECTRICAL/INSTRUMENTATION EQUIPMENT/DEVICES IN THE INDICATED AREA WITH DASHED LINES, INCLUDING LIGHTING FIXTURES, RACEWAY, AND ELECTRICAL WIRING, TO ACCOMMODATE NEW EQUIPMENT AND PIPING AS PER CONTRACT DOCUMENTS.
- PROVIDE NEW CONDUITS AND WIRES FOR POWER, CONTROL AND DC SIGNALS, FROM EXISTING AIR HANDLING UNIT, ASU-8004, TO NEW VARIABLE SPEED DRIVE, VFD-8004 ENCLOSURE. REFER TO ELECTRICAL SHEETS FOR DETAILS. MOUNT VFD ENCLOSURE ON 4" HOUSEKEEPING PAD. COORDINATE WITH OWNER.
- FOR EXISTING CONDITIONS, TO BE FIELD VERIFIED, REFER TO RECORD DRAWINGS:
  - 2006 SHEETS ELECTRICAL, P&ID
  - 1992 AS-BUILT SERIES ELECTRICAL AND INSTRUMENTATION
  - 1990 SERIES 400-E, SERIES 300-N
  - 1973 DWG C7039 & SHEETS 1-79



KEY PLAN



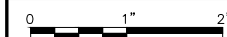
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	I. RINCON
DRAWN	P. MCCLINTOCK
CHECKED	E. SWANSON
PROJECT NUMBER	171097

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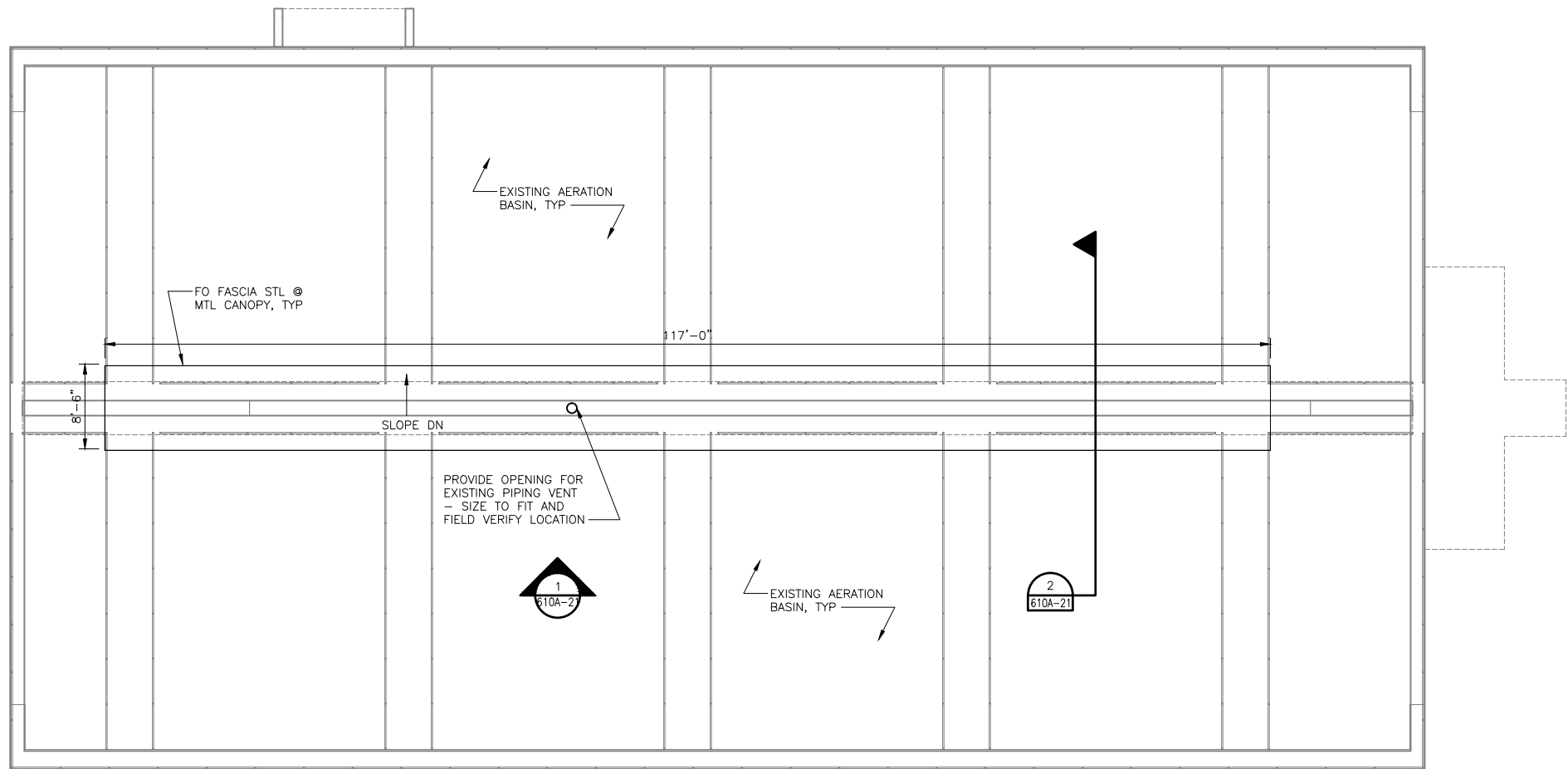
SOLIDS HANDLING BUILDING  
POWER AND CONTROL PLAN



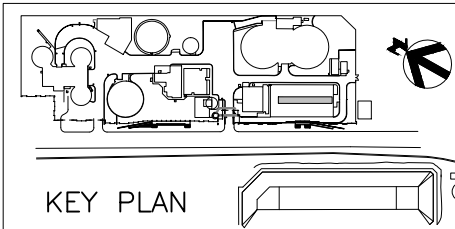
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SCALE	1/4" = 1'-0"

SHEET	510E-01
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CANOPY PLAN  
1/8" = 1'-0"



UNDERGROUND SERVICE ALERT  
ONE-CALL NUMBER  
1-800-424-5555  
CALL TWO BUSINESS DAYS  
BEFORE YOU DIG



1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	D. HOGAN
DRAWN	J. ZHAO
CHECKED	
PROJECT NUMBER	171097

ELECTRONIC SEAL AND  
SIGNATURE HAS BEEN  
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A CERTIFIED DOCUMENT

 **City of  
Wenatchee**  
WASTE WATER TREATMENT  
PLANT IMPROVEMENTS

ARCHITECTURE  
AERATION CANOPY PLAN

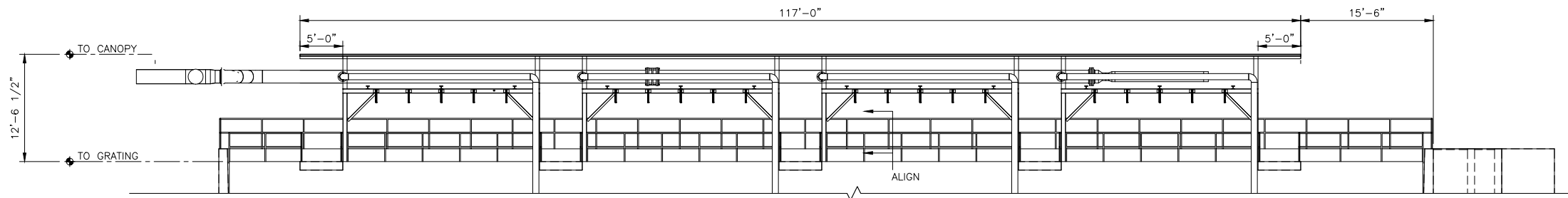


FILENAME	610A-01.dwg
SCALE	1/8"=1'-0"

SHEET  
**610A-01**



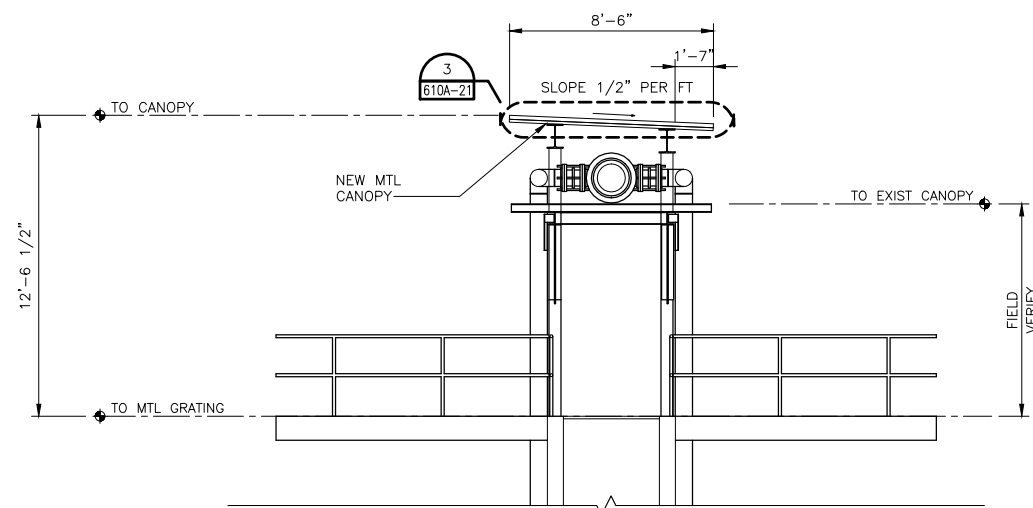
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### AERATION ELEVATION

SCALE: 1/8" = 1'-0"

1  
610A-01

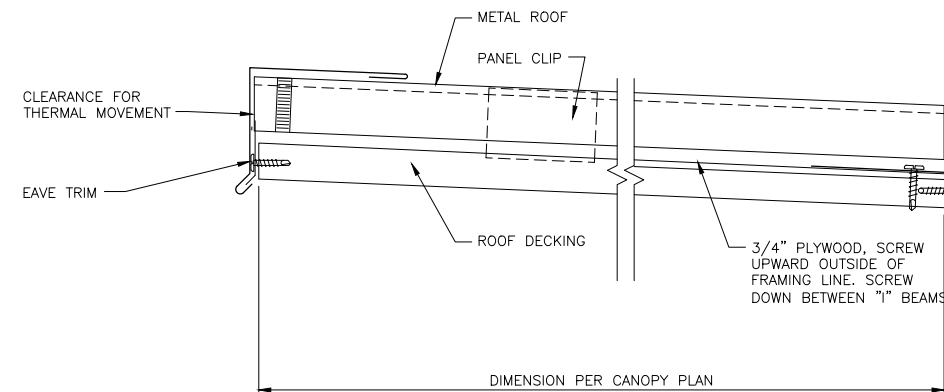


NOTE: SEE 11 FOR STRUCTURAL DETAILS

### AERATION CANOPY SECTION

SCALE: 1/4" = 1'-0"

2  
610A-01



### CANOPY DETAIL

SCALE: 3/8" = 1'-0"

3  
-



ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	D. HOGAN
DRAWN	J. ZHAO
CHECKED	
PROJECT NUMBER	171097

ELECTRONIC SEAL AND  
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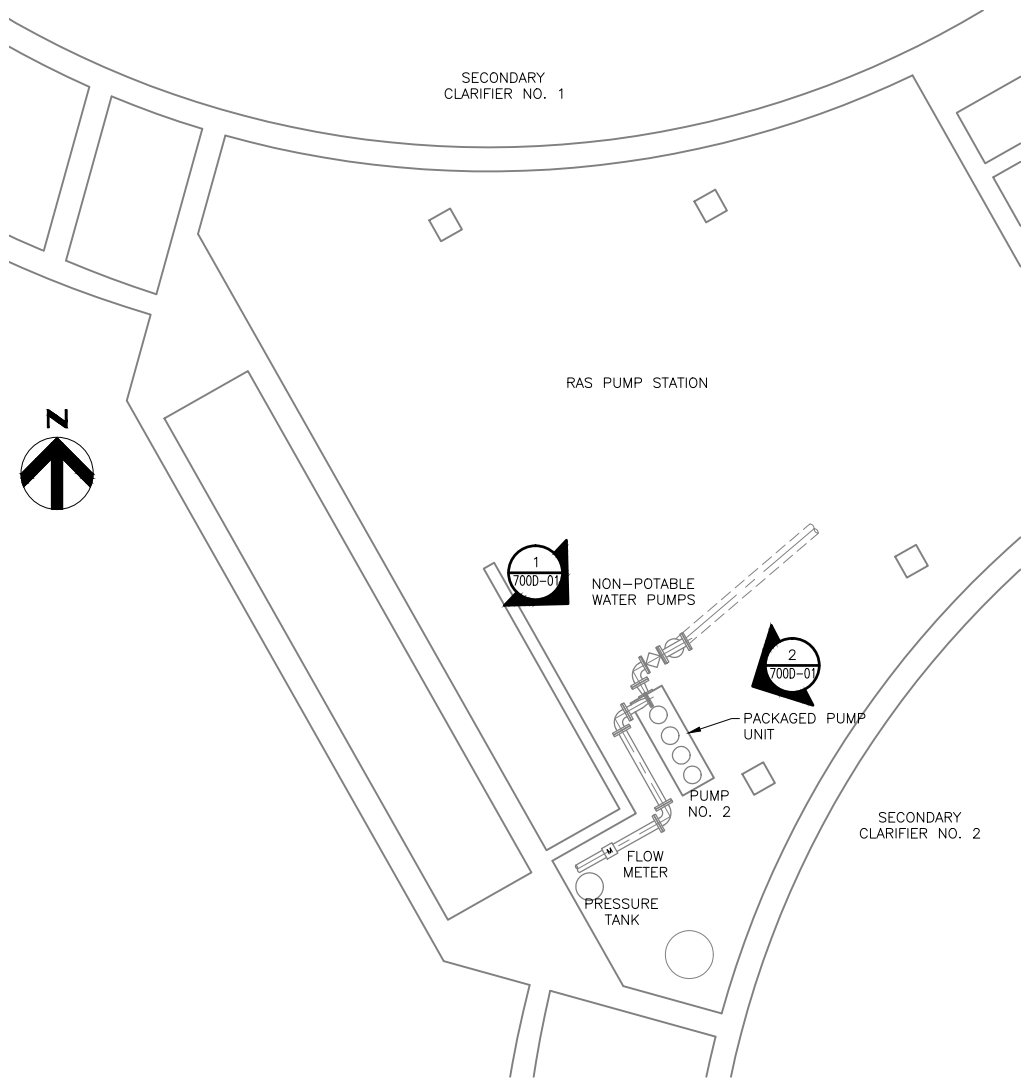
### AERATION BASIN CANOPY ELEVATION / SECTION



FILENAME	610A-21.dwg
SCALE	AS NOTED

SHEET  
610A-21

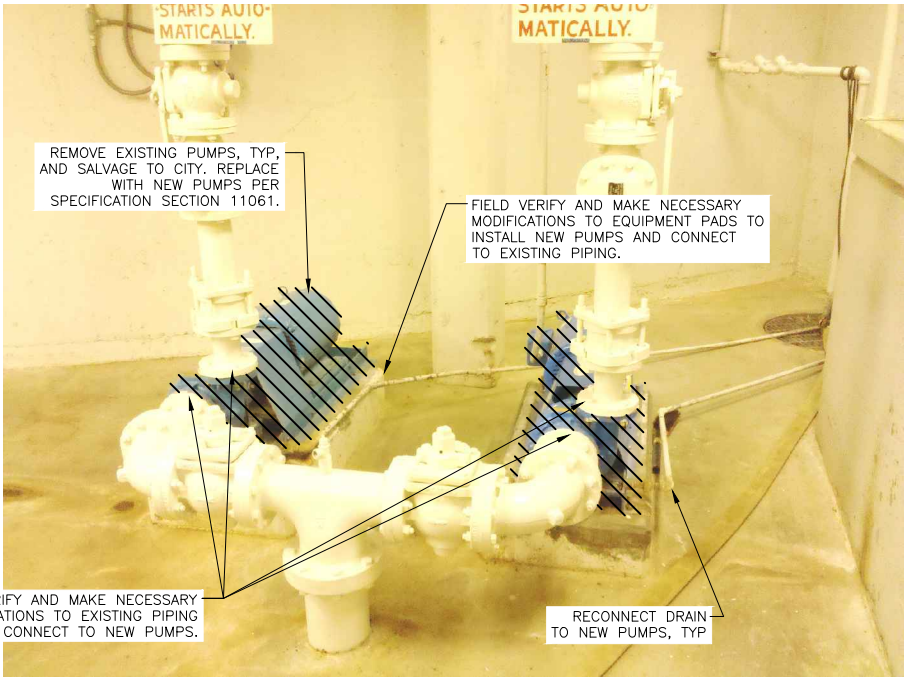
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**NON-POTABLE WATER PUMPS**

1/4" = 1'-0"

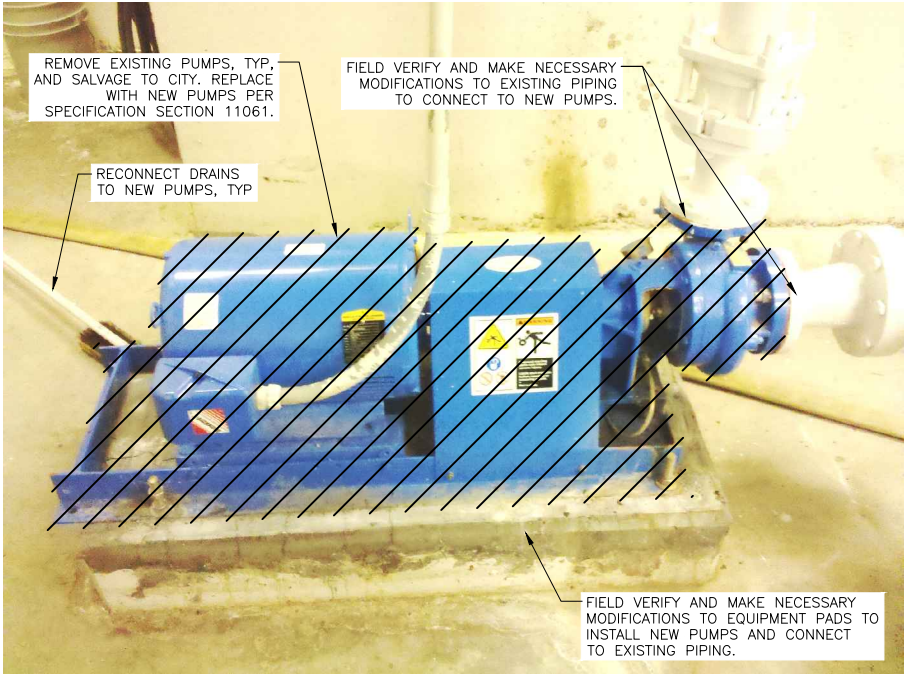
NOTE: OTHER PIPING AND EQUIPMENT IN THE RAS PUMP STATION ARE NOT SHOWN FOR CLARITY.



**DETAIL PHOTO**

NOT TO SCALE

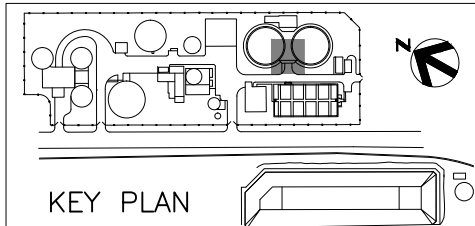
1  
700D-01



**DETAIL PHOTO**

NOT TO SCALE

2  
700D-01



**KEY PLAN**



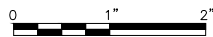
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	S. CHILUKURI
DRAWN	B. LILLY
CHECKED	J. KOCH
PROJECT NUMBER	171097

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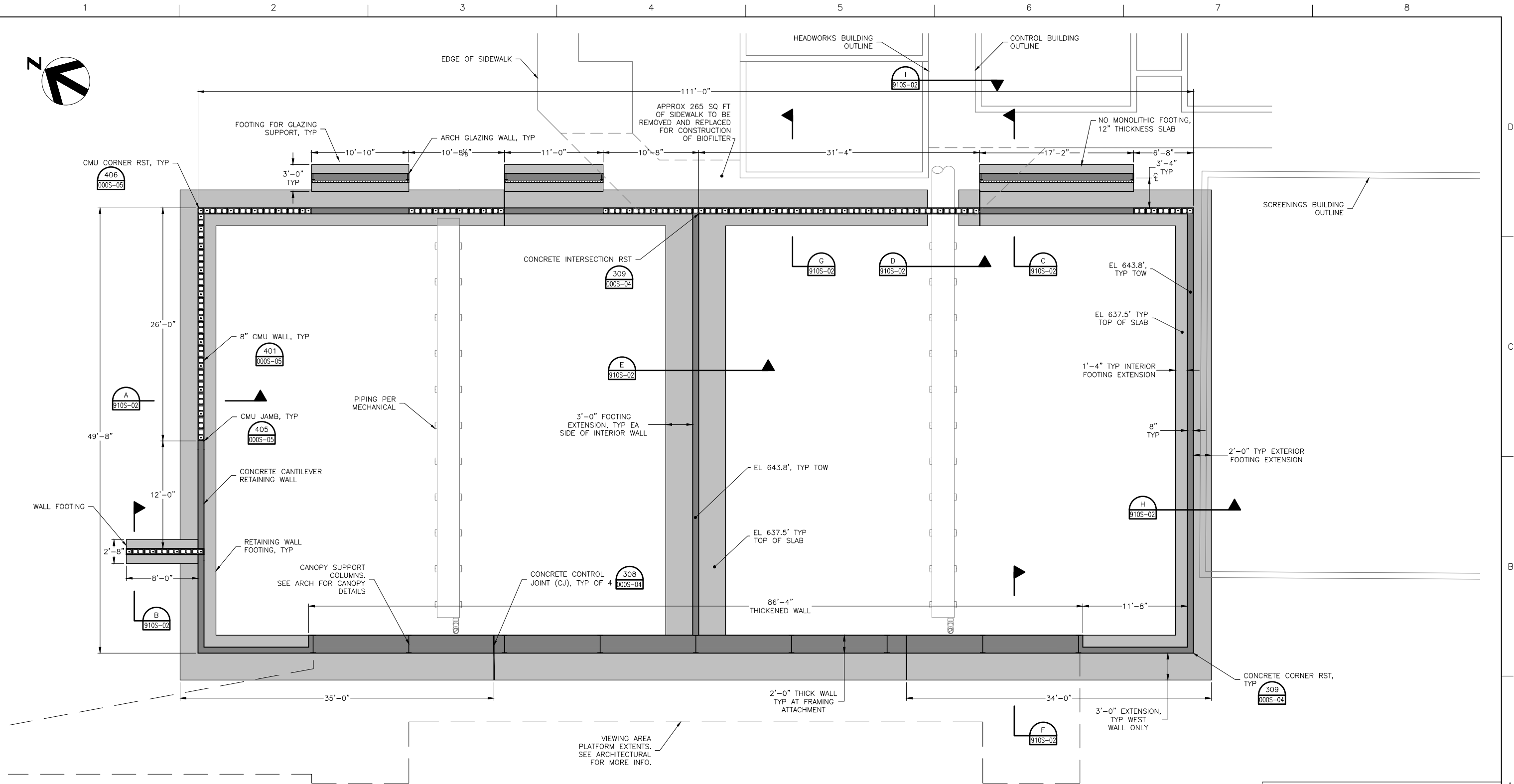
**SECONDARY CLARIFIERS  
NON-POTABLE WATER PUMPS DETAILS**



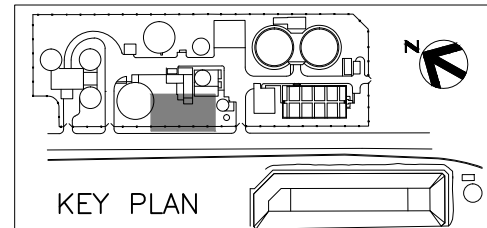
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SCALE	NOT TO SCALE

SHEET  
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**FOUNDATION PLAN**  
3/16" = 1'-0"



1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	K. KORNER
DRAWN	J. CONNER
CHECKED	M. HIJAZI
PROJECT NUMBER	171097

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### BIOFILTER STRUCTURAL FOUNDATION PLAN

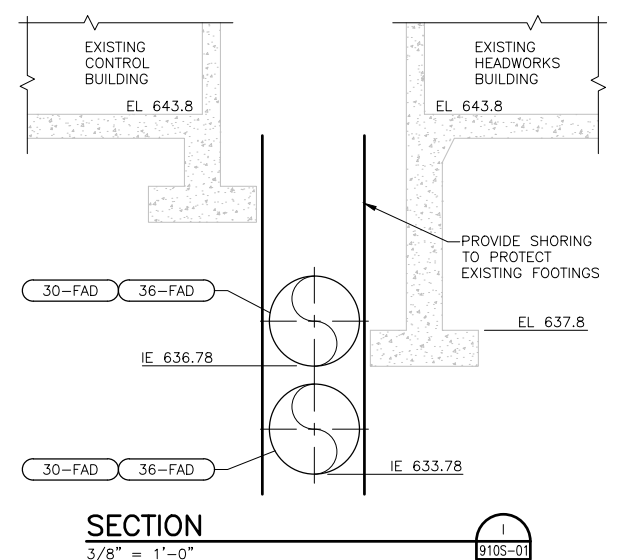
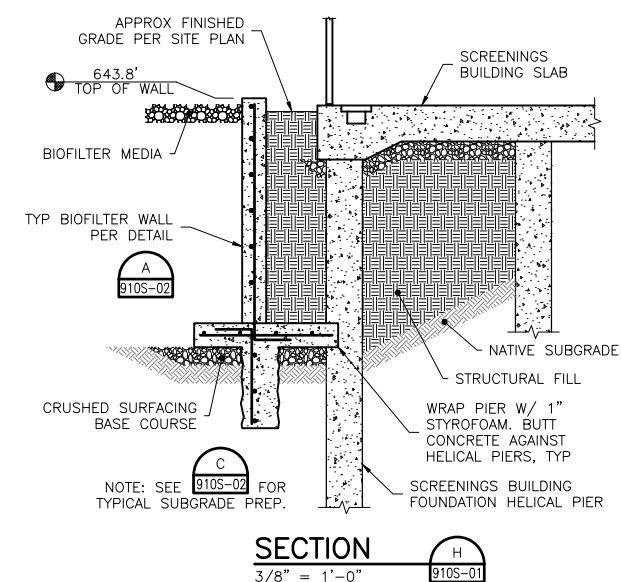
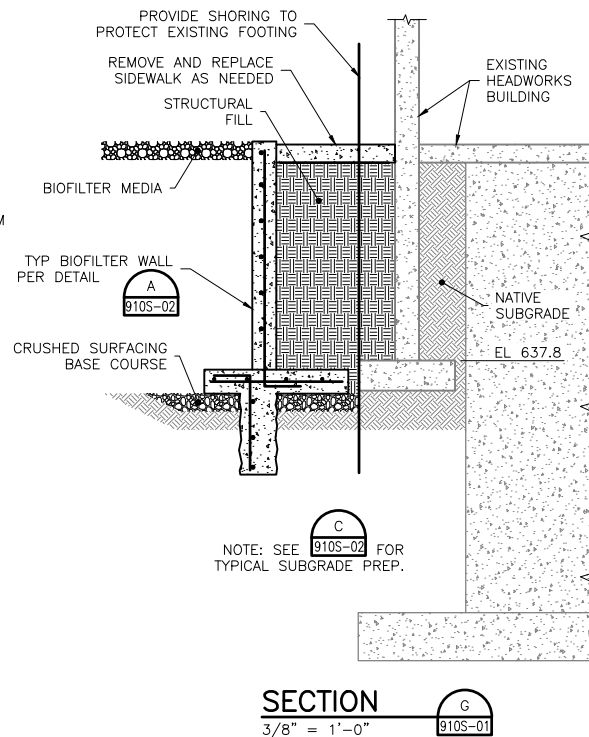
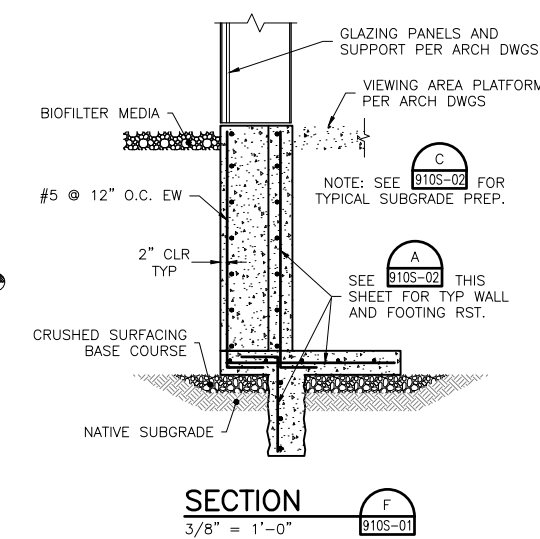
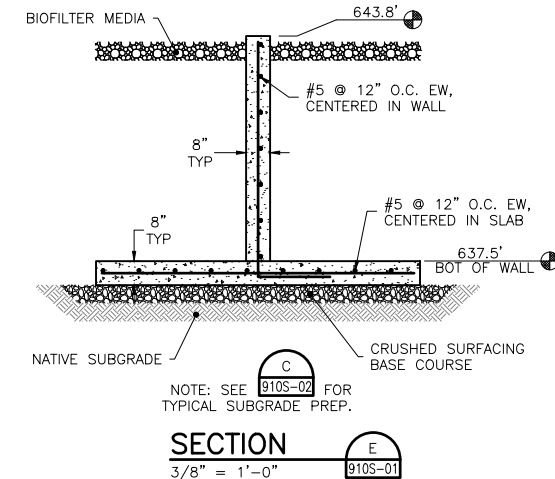
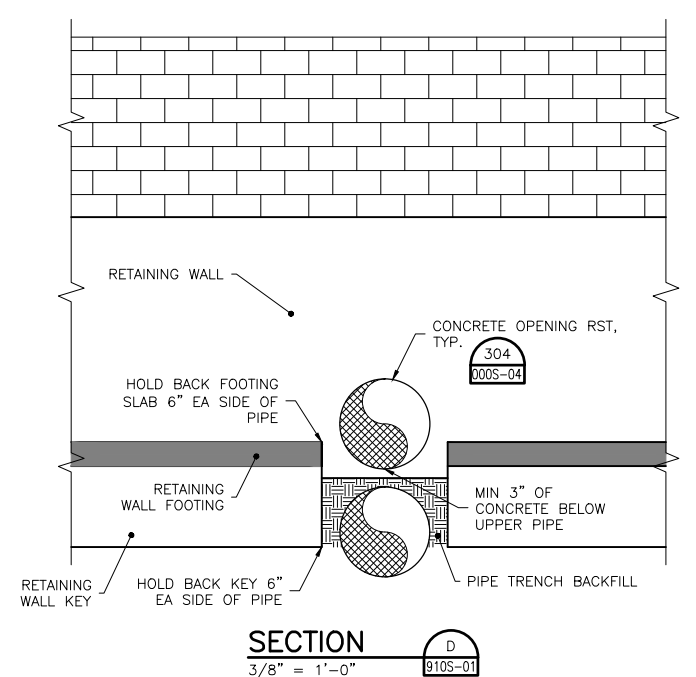
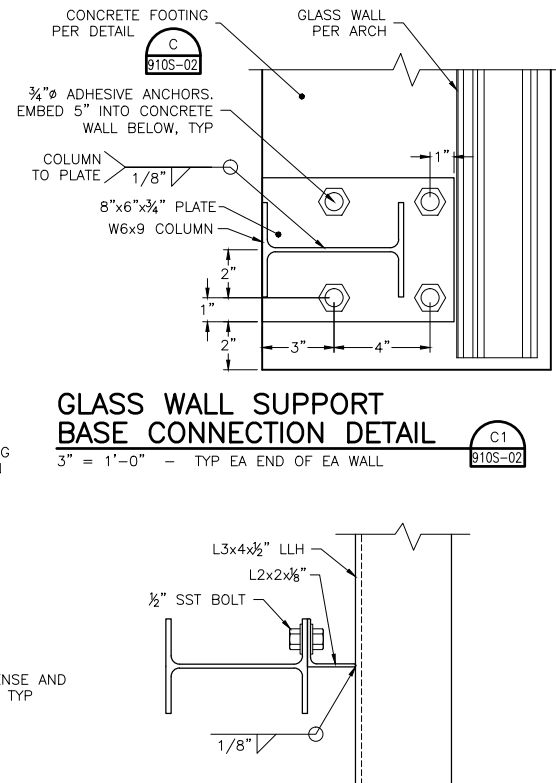
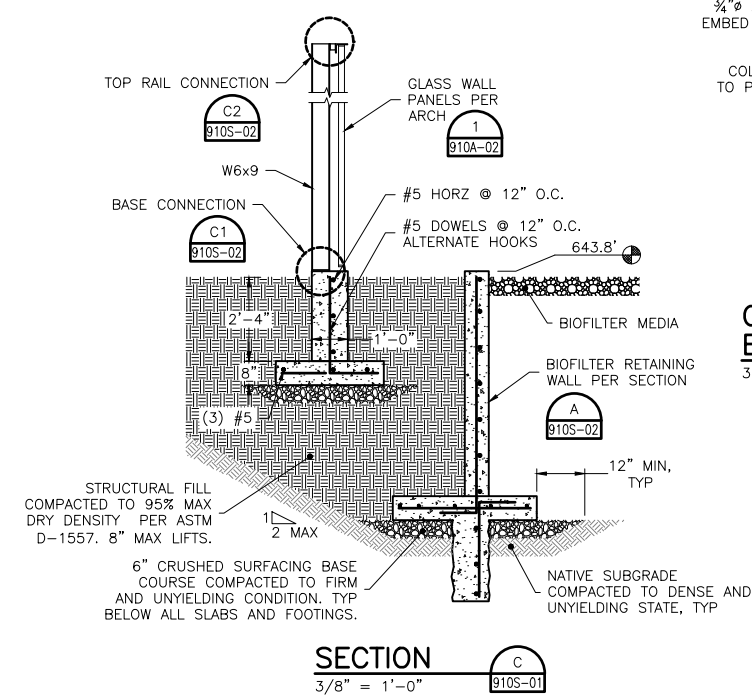
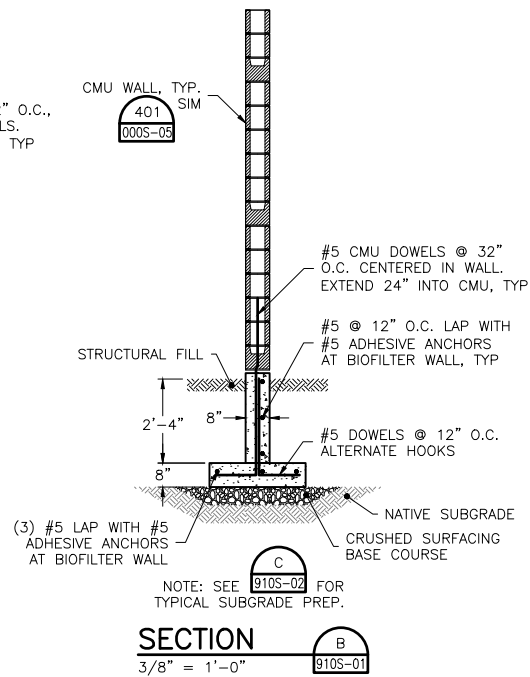
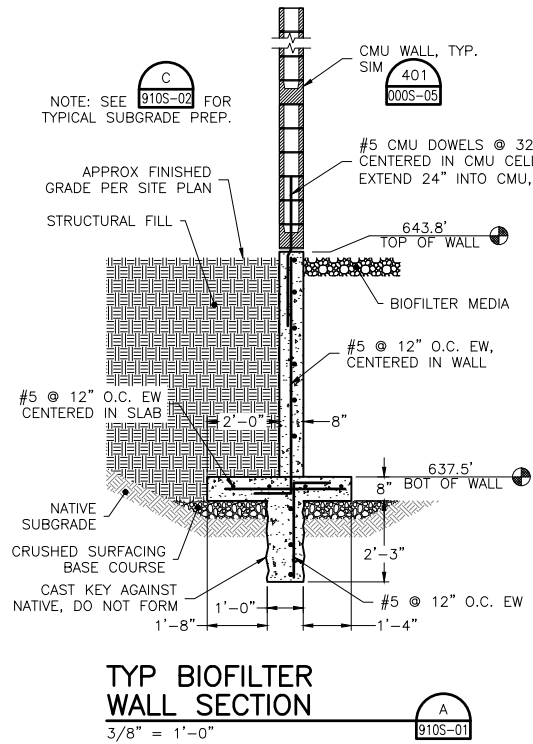


FILENAME	910S-01.dwg
SCALE	AS SHOWN

SHEET

**910S-01**

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HDR Engineering, Inc.

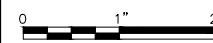
ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	K. KORNIHER
DRAWN	J. CONNER
CHECKED	M. HIJAZI
PROJECT NUMBER	171097

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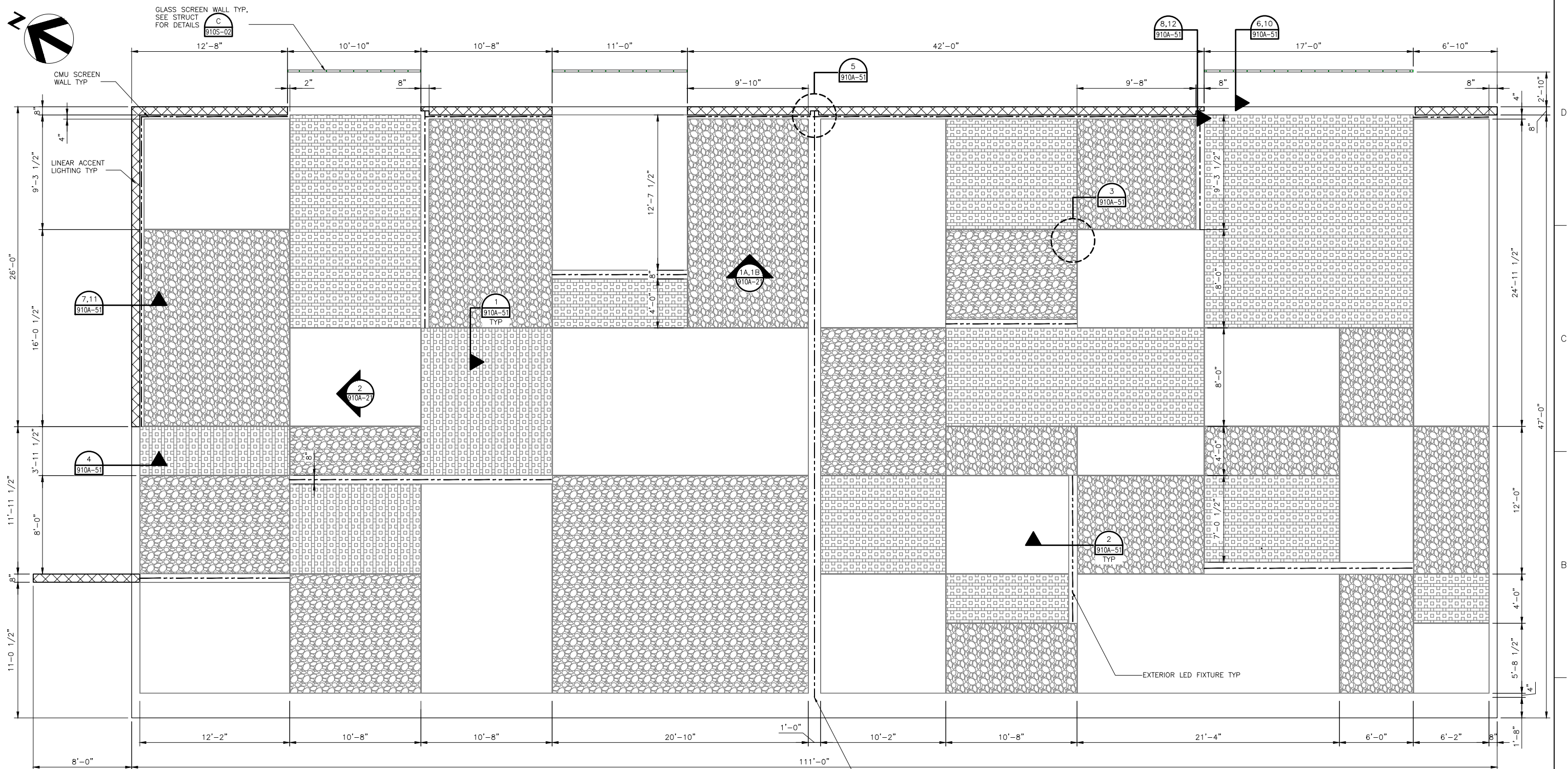
**BIOFILTER STRUCTURAL SECTIONS AND DETAILS**



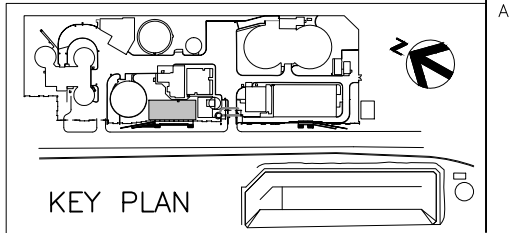
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SCALE	AS SHOWN		



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**BIOFILTER PLAN**  
SCALE: 1/4" = 1'-0"



- A. SEE LANDSCAPE FOR DIFFERENT MEDIA TYPES.
- B. SEE STRUCTURAL/CIVIL DWGS FOR BIOFILTER LOCATION.
- C. SEE CIVIL FOR GRADING & SITE INFORMATION.
- D. SEE ELEC PLAN FOR LIGHTING TYPES AND DETAILS

UNDERGROUND SERVICE ALERT

ONE-CALL NUMBER

1-800-424-5555

CALL TWO BUSINESS DAYS BEFORE YOU DIG

**HDR**

HDR Engineering, Inc.

ISSUE	DATE	DESCRIPTION
1	APR 2014	RECORD DRAWINGS
0	NOV 2011	ISSUE FOR CONSTRUCTION SUBMITTAL

PROJECT MANAGER	A. MEILLEUR
DESIGNED	D. HOGAN
DRAWN	J. ZHAO
CHECKED	
PROJECT NUMBER	171097

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**City of Wenatchee**

**WASTE WATER TREATMENT PLANT IMPROVEMENTS**

0 1" 2"

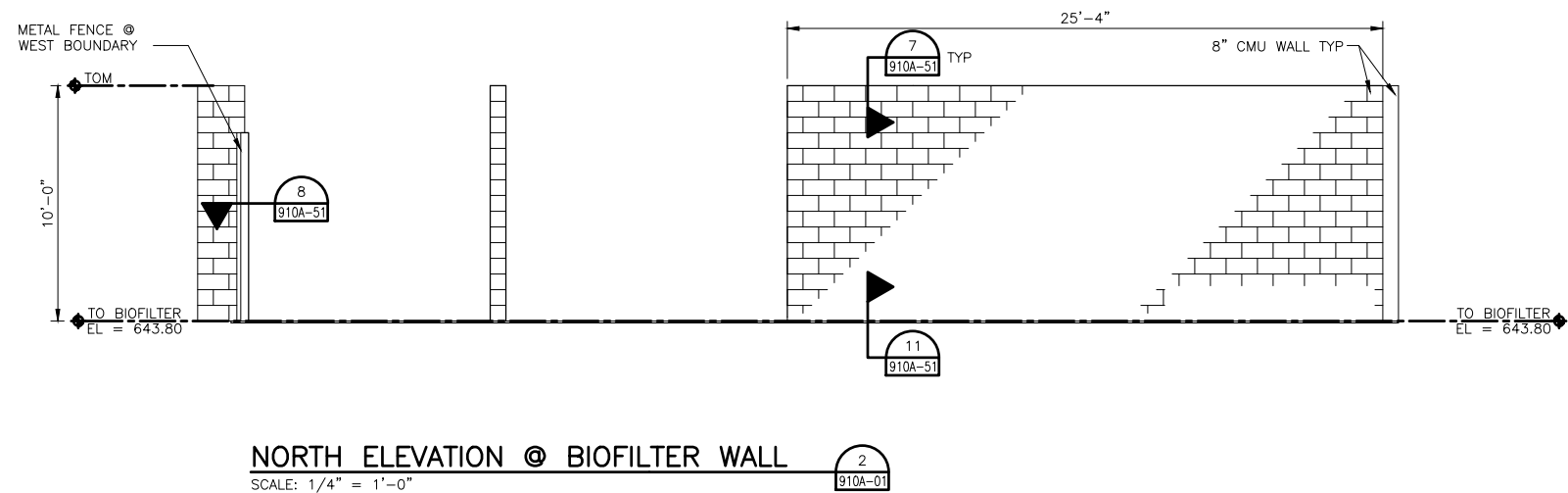
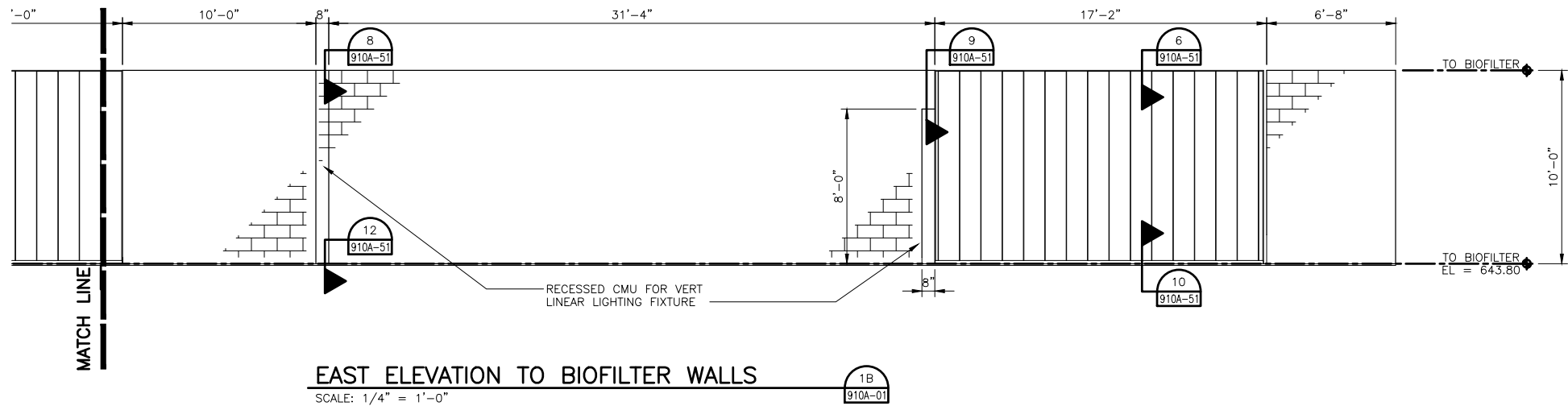
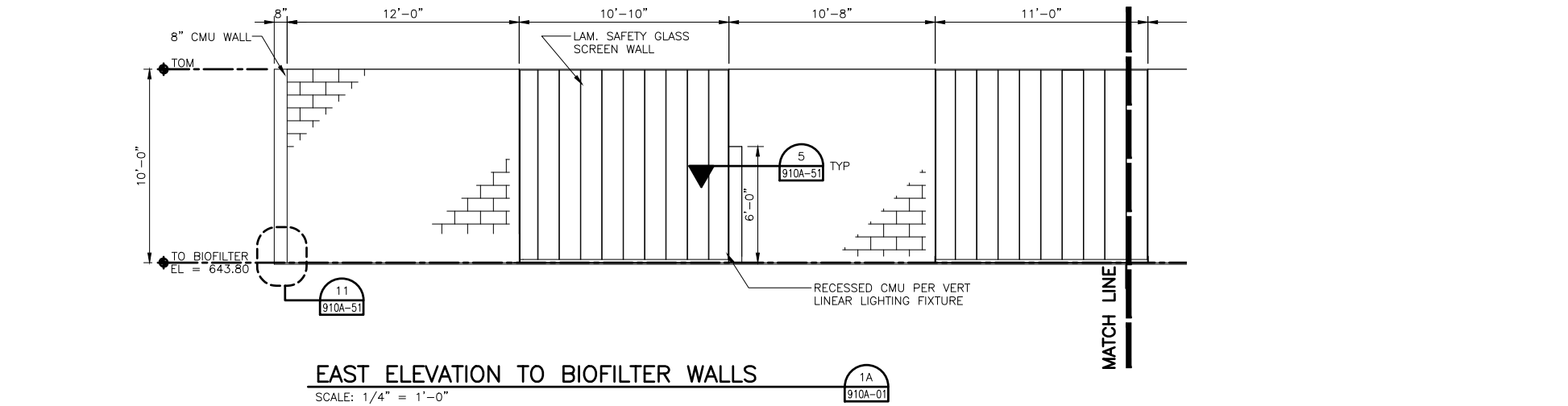
**BIOFILTER PATTERN PLAN**

FILENAME 910A-01.dwg

SCALE 1/4"=1'-0"

SHEET **910A-01**

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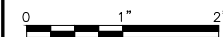
1	APR 2014	RECORD DRAWINGS
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DRAWN	J. ZHAO
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PROJECT NUMBER	171097

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BIOFILTER  
PERIMETER WALL ELEVATIONS

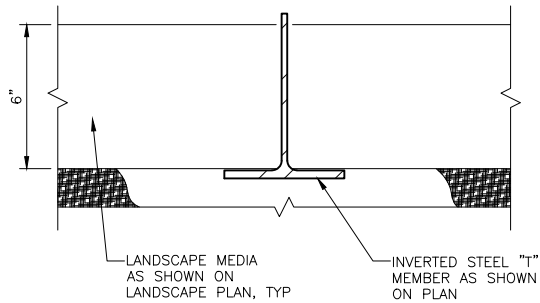


FILENAME	910A-21.dwg
SCALE	1/4" = 1'-0"

SHEET	910A-21
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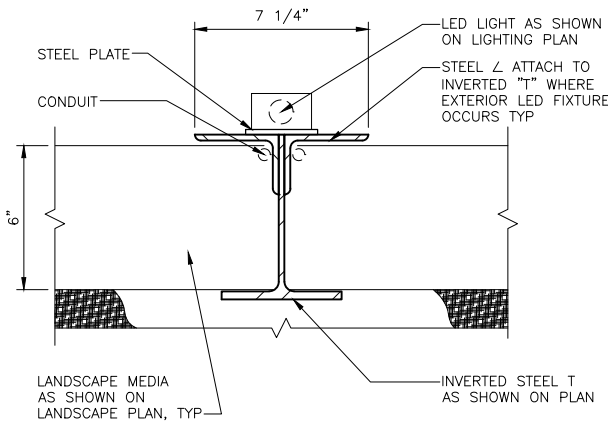
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**TYPICAL DETAIL**

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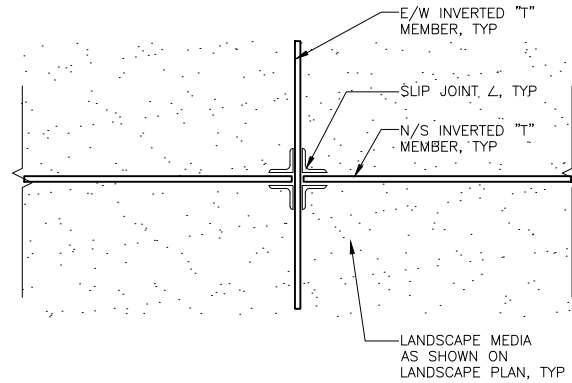
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910A-01



**DETAIL W/ LIGHT**

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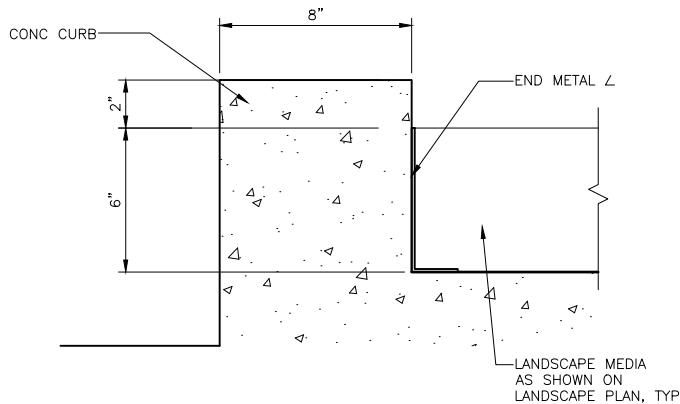
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**DETAIL**

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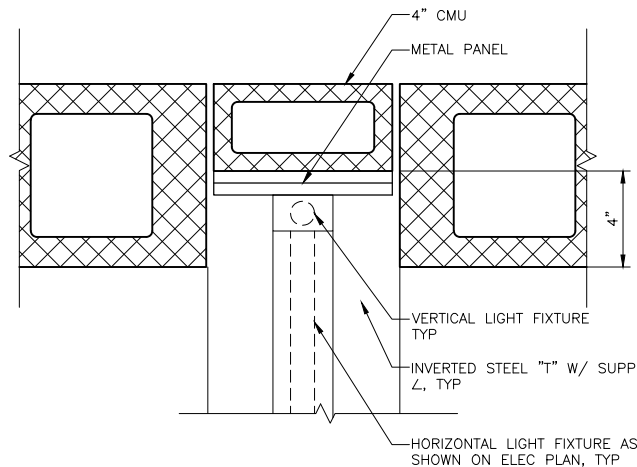
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910A-01



**DETAIL**

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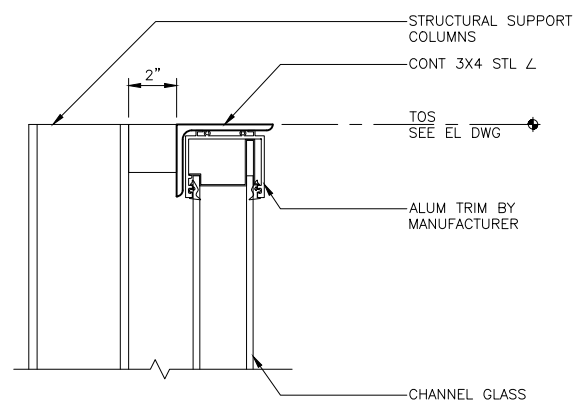
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**DETAIL**

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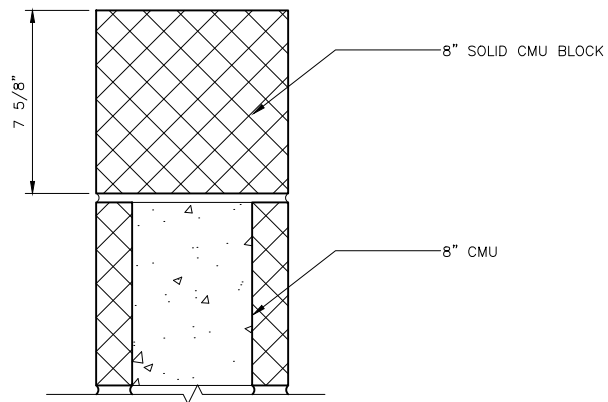
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910A-01



**DETAIL**

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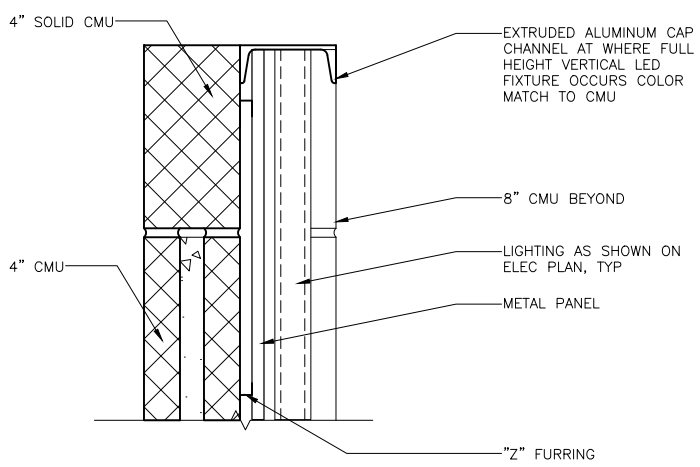
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**DETAIL**

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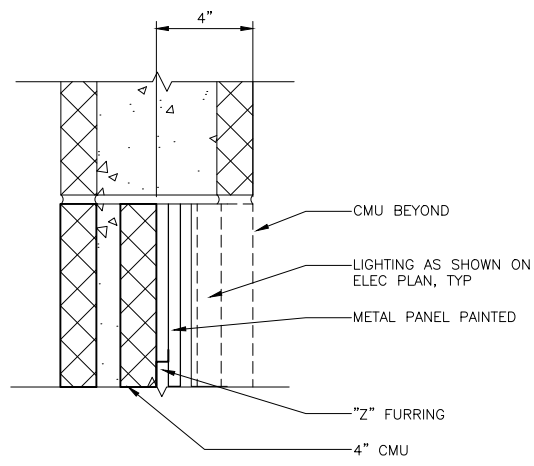
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**DETAIL**

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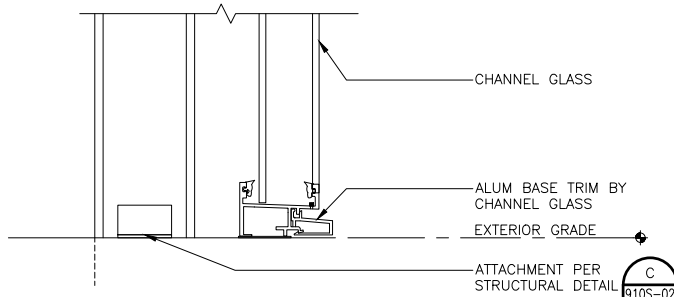
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910A-01



**DETAIL**

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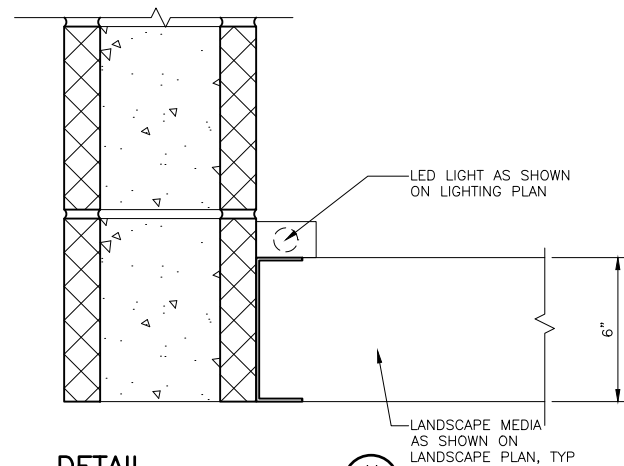
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**DETAIL**

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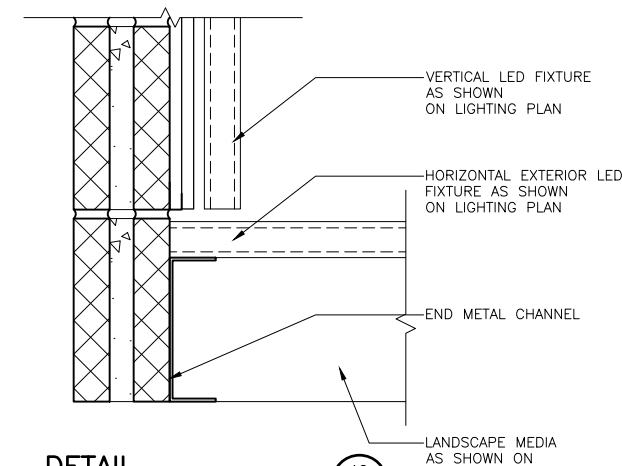
10  
910A-01



**DETAIL**

SCALE: 3"=1'-0"

11  
910A-01



**DETAIL**

SCALE: 3"=1'-0"

12  
910A-01



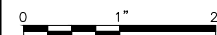
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PROJECT MANAGER	A. MEILLEUR
DESIGNED	D. HOGAN
DRAWN	J. ZHAO
CHECKED	
PROJECT NUMBER	171097

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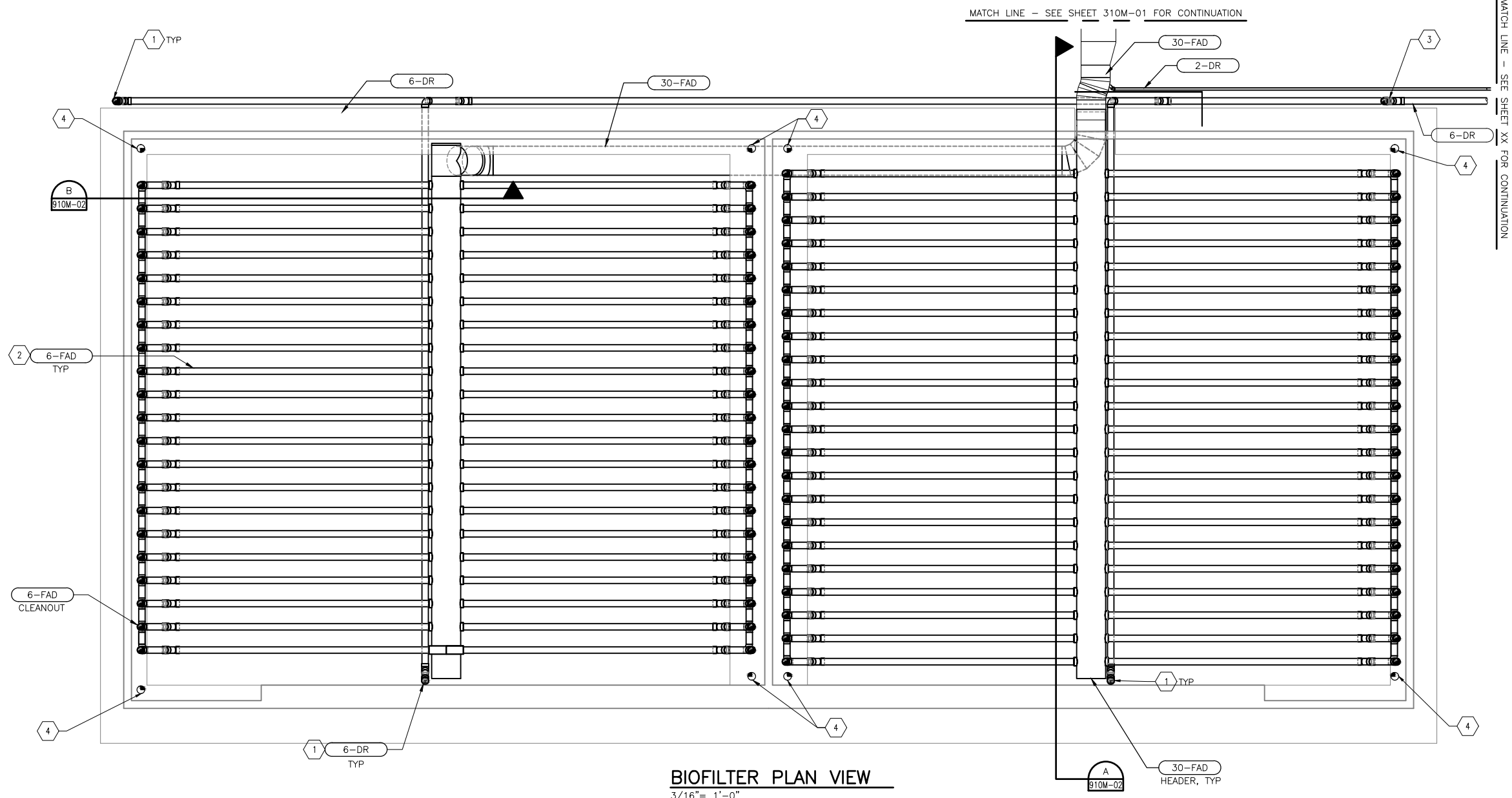
**BIOFILTER  
ARCHITECTURAL DETAILS**



FILENAME	910A-51.dwg
SCALE	3"=1'-0"

SHEET  
**910A-51**

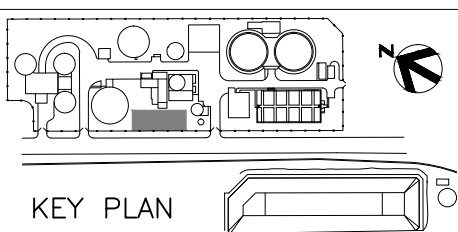
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BIOFILTER PLAN VIEW  
3/16" = 1'-0"

- GENERAL NOTES:
1. THE BIOFILTER MANUFACTURER SHALL PROVIDE ALL EQUIPMENT AND MATERIALS ACCORDING TO SPECIFICATION SECTION 11135. INORGANIC BIOFILTER. THE GENERAL CONTRACTOR SHALL PROVIDE ALL THE NECESSARY CONCRETE AND REINF PER PLANS AND SPECIFICATIONS.
  2. ALL PIPING WITHIN FIVE (5) FEET OF BIOFILTER SHALL BE PART OF THE BIOFILTER MANUFACTURER SCOPE OF SUPPLY.

- KEY NOTES:
- 1 6" VERTICAL CLEANOUT, SEE DETAIL 1/910M-02.
  - 2 LATERAL.
  - 3 SAMPLING CLEANOUT. SEE DETAIL 2/910M-02.
  - 4 SPRINKLERS SEE SPECIFICATION 11135. SEE SHEET 000L-04 FOR SITE IRRIGATION INFORMATION.



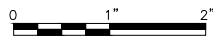
KEY PLAN



1	APR 2014	RECORD DRAWINGS
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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	A. MEILLEUR
DESIGNED	J. MANION
DRAWN	H. FANCHER
CHECKED	
PROJECT NUMBER	171097

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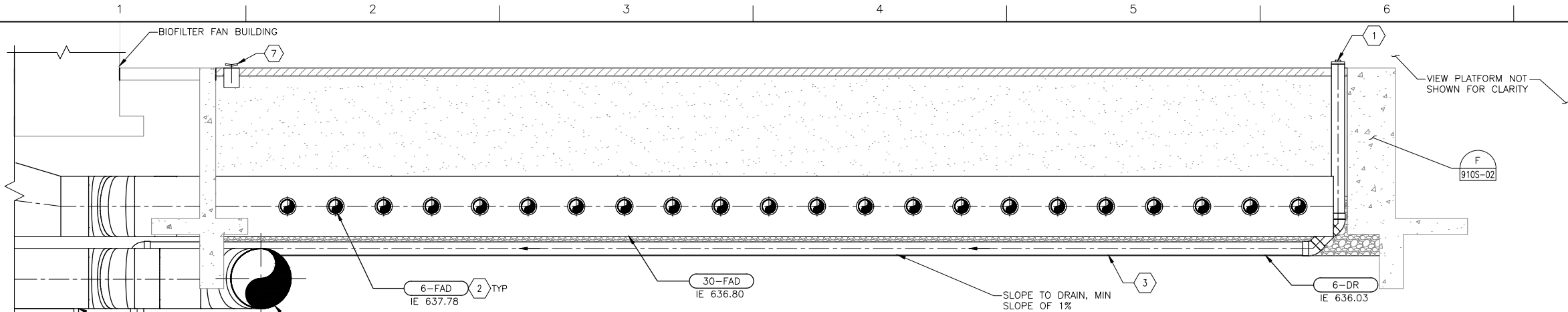


BIOFILTER PIPING PLAN

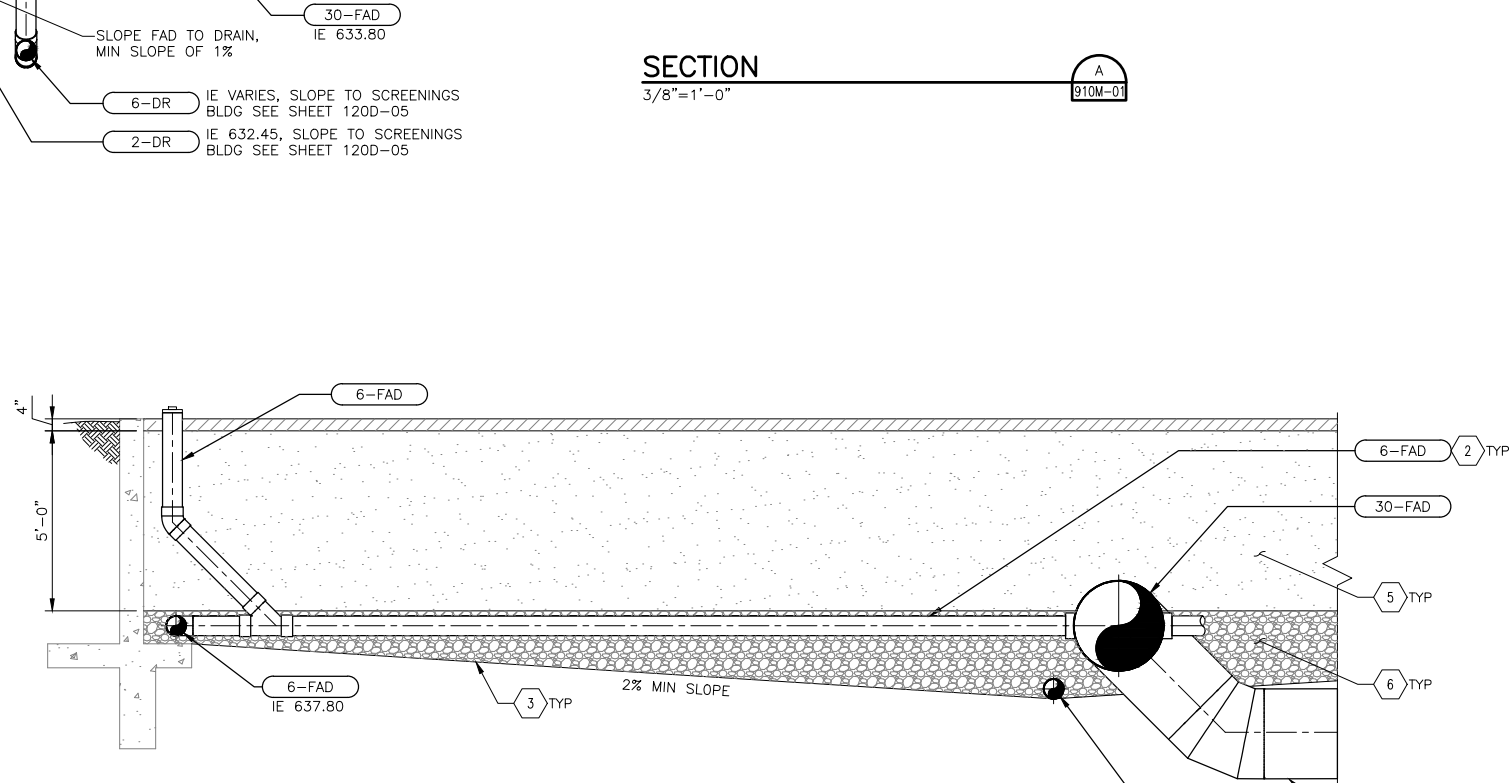
FILENAME	910M-01.dwg
SCALE	AS NOTED

SHEET  
**910M-01**

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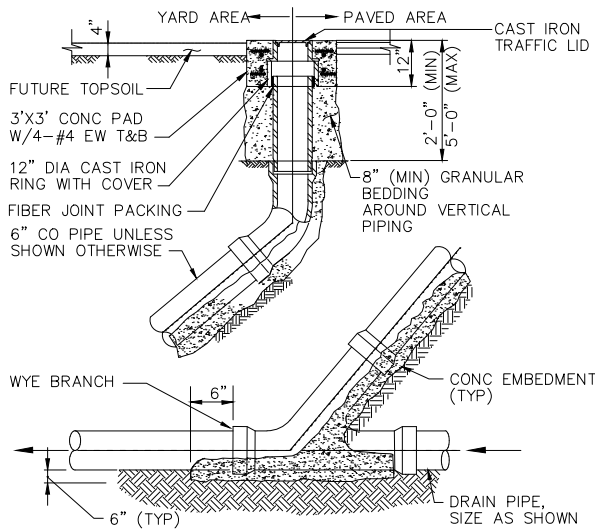
SECTION  
3/8"=1'-0" A 910M-01



SECTION  
3/8"=1'-0" B 910M-01

- GENERAL NOTES:
1. THE BIOFILTER MANUFACTURER SHALL PROVIDE ALL EQUIPMENT AND MATERIALS ACCORDING TO SPECIFICATION SECTION 11135. INORGANIC BIOFILTER. THE GENERAL CONTRACTOR SHALL PROVIDE ALL THE NECESSARY CONCRETE AND REINF PER PLANS AND SPECIFICATIONS.
  2. ALL PIPING WITHIN FIVE (5) FEET OF BIOFILTER SHALL BE PART OF THE BIOFILTER MANUFACTURER SCOPE OF SUPPLY.

- KEY NOTES:
- 1 6" VERTICAL CLEANOUT, SEE DETAIL 1/-.
  - 2 LATERAL.
  - 3 PVC LINER.
  - 4 SEE ARCHITECTURAL FOR COVER ROCK TOPPING MATERIAL.
  - 5 SOIL FILTER MEDIA
  - 6 PLENUM ZONE ROCK
  - 7 SPRINKLERS PER SPECIFICATION 11135.



CLEAN OUT DETAIL  
SCALE: NTS 1 1 910M-01 -



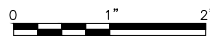
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BIOFILTER  
SECTIONS AND DETAILS



FILENAME	910M-02.dwg
SCALE	AS NOTED

SHEET  
910M-02